Down To Earth
Volume Two

The Report Of The Federal/Provincial Task Force
On The Supply And Price Of Serviced Residential Land

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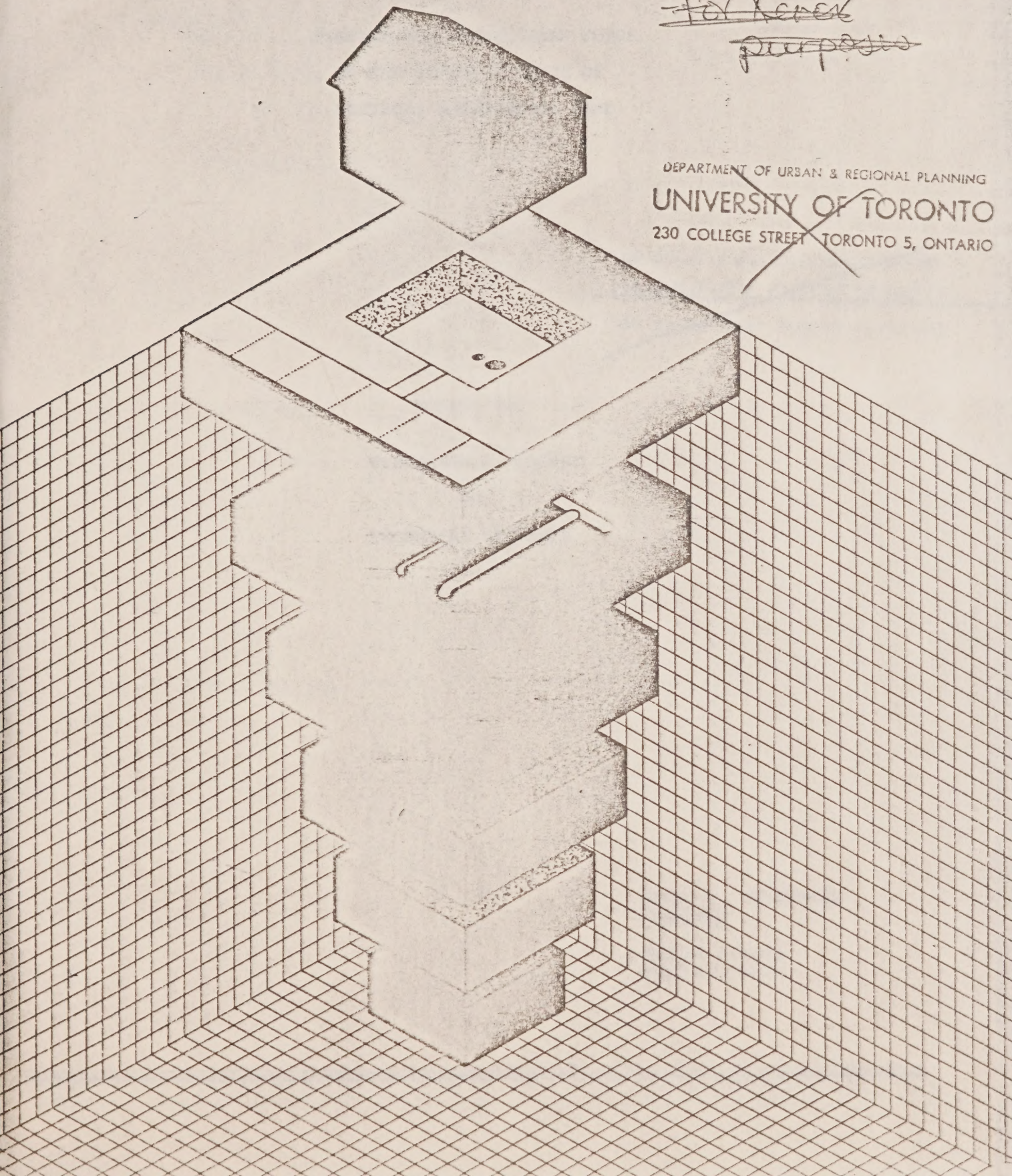
FEDERAL/PROVINCIAL TASK FORCE

ON THE SUPPLY & PRICE OF

SERVICED RESIDENTIAL LAND

VOLUME TWO

SYNTHESIS & SUMMARY

OF

TECHNICAL RESEARCH

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Rapidly rising land and housing prices became a
widespread urban phenomenon across Canada in the
early 1970's. In the pressure of the moment, a
number of hastily conceived theories were offered
to explain this phenomenon. Since land price
inflation and, indeed, general price inflation were
new and unknown to most of the present generation,
it is probably not unkind to say that many of these
theories lacked both a strong conceptual framework
and an adequate empirical base.

The Task Force was born from a general dissatis-
faction with these theories. Its first purpose
was to study two related issues, the level of
serviced lot prices across the country and the
rapid increase in prices during the last decade.
In doing so, the Task Force has distinguished
between trends which are common across the country
and those which are local in nature. This formu-
lation will help local policymakers, for example,
to distinguish between forces which are outside
their control from other factors which can be
influenced by their decisions. Such a distinction
would seem to be especially needed in light of the
fact that virtually all of the popular theories of
land price inflation (e.g., the "monopoly-developer
theory" as discussed below) focus on local factors
to the exclusion of important national factors such
as inflationary expectations.

The second purpose of this Report is to provide
policymakers with tools for ongoing research into
land markets and in that way to help future
decision making. Thus, in addition to investi-
gating the past, the Task Force has created
standard research methodologies for future inves-
tigation into the profitability of individual
subdivisions, concentration of land ownership,
infill rezoning, land assembly, municipal servicing
standards, lot servicing costs and citizen resis-
tance to development. An important spin-off of the
Task Force work in this respect has been the
creation for the first time in Canada of data sets
on some of these topics which are comparable across
the country.

Appendix 2 contains the terms of reference presented
to the Task Force. They are little more than a list
of factors for investigation and in no sense
provide a structured and integrated research program.
This gave the Task Force a broad degree of freedom
but also imposed the responsibility of making many
important decisions on research design and report
structure. A short discussion of some of these
major decisions follows. Each was influenced by
limitations of time and budget.

One of the first questions the Task Force had to
deal with was the issue of data versus analysis.
No matter how much many may dislike "theory", some
conceptual framework (which is the essence of
theory) is indispensable merely to know what data
to collect and how to interpret it. In some of the
problem areas the Task Force analysed, even this
most basic need for a conceptual framework required
original research. Thus the Task Force gradually
came to devote more effort to analytical foun-
dations and research methodologies than originally
intended. One result of the Task Force's having
developed analytical tools is a set of standard and
comparable research methodologies that can provide
a basis for future empirical research.

A closely related issue was whether to make do with
"off-the-shelf data" or whether to allocate sub-
stantial resources to original data collection. A
large volume of data has been published, but much
of it is irrelevant to price-related questions.
Much of the available data appear to be numbers
that are easy to collect rather than numbers that
are needed. The almost total lack of data on lot
servicing costs and on the volumes of land in
various stages of the subdivision approval process
are only two of many examples. Another problem
with the existing data is that they are often non-
comparable across urban areas. For both reasons,
the Task Force devoted considerable effort to
collecting original data.

All original data collection is costly in time and
budget. Nevertheless, in concentration of land
ownership, municipal servicing standards and lot
servicing costs, the Task Force was able to achieve
widespread coverage. In other topics, such as the
profitability of individual subdivisions, land
assembly, infill rezoning, the subdivision approval
process and citizen resistance to development, the
Task Force had to sacrifice comprehensive coverage
in favour of case studies. The Task Force had a
sharply limited ability to collect over months
original data that the federal, provincial and
large municipal governments have not collected over
years.

As a result the Task Force tried to do small
studies well, opting for illustrative depth in a
restricted sample size. The weakness of case
studies is that they cannot claim to be represen-
tative. The Task Force acknowledges this unavoi-
dable weakness. But case studies are illustrative
of the broader trends which many observers believe
are at work, not necessarily in every urban area,
but generally across the country. They therefore

permit suggestive conclusions about overall
markets not limited to the particular markets
studied. The case studies are too few in number
to yield representative conclusions at this time;
but if governments applied the Task Force's stan-
dardized methods on a continuing basis, they could
quickly build a representative data base.

Another important decision made by the Task Force
was to devote considerable time to a review
process. All contributors were required to submit
their work to a process of intense critical review
by panels of experts from a wide variety of disci-
plines and occupations: economists, politicians,
senior federal, provincial and municipal policy-
makers, geographers, consulting engineers, land
market analysts, land use planners, social policy
analysts, financial analysts, developers and
accountants. Often the review sessions were face-
to-face confrontations, recorded on tape. This
process was designed to minimize error, reduce
omissions and prevent the Task Force from acqui-
ring the biases of the contributors.

Against this background, we conclude our Intro-
duction with some comments on the structure of
Volume Two. We emphasize that its purpose is to
synthesize and summarize, not reproduce, the
research undertaken by the Task Force. It there-
fore selects from the data sets in order to high-
light and illustrate the Task Force's major
findings. Full data sets will be published at a
later date in Volume Three, the Research Studies
Volume; it will also contain the full texts of the
individual research studies commissioned by the
Task Force. Appendix 3 contains the proposed table
of contents for Volume Three.

Chapter 2 gives a statement of the problem along
with a brief statistical overview of the recent
past. Chapters 3 and 4 are devoted to a general
analysis of land prices in order to provide the
necessary conceptual framework. Chapter 5 deals
exclusively with the boom years, 1972 to 1975.
The remaining chapters of the Report consist
principally of empirical analysis of the other
issues mandated in the terms of reference, Chapters
6 to 9 dealing with the private sector issues and
Chapters 10 to 14 dealing with the public sector
issues. Chapter 15 presents the Task Force's
summary and conclusions.

2. CANADIAN SERVICED LOT AND HOUSING PRICES:
A STATISTICAL ABSTRACT

Before we begin our analysis, a short review of
the recent past is probably in order. The present
chapter will, therefore, numerically document
serviced lot and dwelling price changes over the
recent past in order that the detailed analysis in
the subsequent sections can be put into perspec-
tive. The purpose of so doing is to provide the
reader with a common perception of past events.
Many subsequent chapters, for example, refer to
the "boom years" of 1972 to 1975 and an under-
standing of what this implies in quantitative terms
will obviously be important to the discussion.

A. Serviced Lot Prices   The best available data on serviced lot prices are
those provided by the Central Mortgage and Housing
Corporation on the lot cost component of newly
constructed single detached dwellings financed
under the National Housing Act (NHA). Although
the NHA lot cost data are subject to a number of
limitations and biases they are certainly suffic-
ient for the present purposes of illustrating
general trends which have occurred over time and
comparing serviced dwelling lot costs across urban
areas. (1)

In order to prevent becoming bogged down in the
numbers, we have placed all of the disaggregated
data in the Appendix to this volume. Tables in
that Appendix are numbered A1-A9 and are used to
derive the tables listed below.

Table 2.1 presents lot costs on a foot frontage
basis in terms of percentage changes for three
periods: 1966-1969, 1969-1972, and 1972-1975. In
Table 2.1 both nominal (current dollar) and real
(constant dollar) percentage changes are recorded.
The nominal and real percentage changes represent
actual price changes and price changes relative to
price changes of other goods and services respec-
tively. Alternatively, the real figures show the
change in price relative to the "average" price
change in the economy.

Table 2.1 shows that in each period, lot prices
rose in real as well as in nominal terms implying
that building lots were becoming increasingly
costly relative to other goods and services. It
is also clear that prices took a dramatic leap
during the 1972-1975 period, a period which sub-
sequent chapters refer to as the boom years. Over
this period the mean real price increase for the
25 areas listed was 40.5% with the nominal increase
reading 85.7%. Thus, during this period of general

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(1) For a discussion on the limitations of this
data see the Task Force Research Volume, Chapter 2.

TABLE 2.1

Percent Changes in Average Cost per Foot Frontage of Fully Paid Fully Serviced
Lots for New Housing Financed Under the
National Housing Act.

	Percent Change 1966-1969		Percent Change 1969-1972		Percent Change 1972-1975	
	Nominal	Real	Nominal	Real	Nominal	Real
Vancouver	68.9	49.9	43.2	28.5	127.4	72.0
Victoria	97.5	75.2	-4.3	-14.1	187.7	117.6
Calgary	41.1	25.2	36.9	22.9	102.5	53.2
Edmonton	19.5	6.0	28.5	15.4	99.8	51.1
Regina	14.9	2.0	6.6	-4.3	80.7	36.7
Saskatoon	39.1	23.4	0.7	-9.6	59.2	20.4
Winnipeg	10.4	-2.0	20.3	8.0	154.8	92.7
Toronto	40.8	24.9	28.1	15.0	104.0	54.3
Hamilton	65.4	46.8	26.1	13.2	136.0	78.5
Ottawa	15.7	2.7	36.3	22.4	115.4	62.9
London	55.3	37.8	15.4	3.6	113.7	61.6
Kitchener	62.0	43.7	24.9	12.1	116.7	63.9
Windsor	29.7	15.1	27.3	14.3	41.9	7.3
St. Catharines	52.8	35.6	12.3	0.8	87.9	42.1
Sudbury	40.3	24.5	76.3	58.3	19.6	-9.5
Kingston	42.2	26.2	22.3	9.8	126.9	71.6
Peterborough	46.9	30.3	50.7	35.3	91.2	44.6
Thunder Bay	46.8	30.3	59.8	43.4	77.7	34.4
Sault Ste. Marie	15.6	2.6	46.5	31.5	111.5	60.0
Montreal	11.9	-0.7	-30.7	-37.8	48.0	12.0
Quebec City	9.4	-2.9	25.4	12.6	14.8	-13.2
Sherbrooke	77.1	57.1	-17.7	-26.1	-15.1	-35.8
Halifax	11.9	-0.7	45.9	31.0	15.9	-12.3
Saint John	29.9	15.3	48.0	32.9	84.3	39.4
Moncton	10.8	1.7	59.6	43.3	40.7	6.4
MEAN	38.2	22.7	27.5	14.5	85.7	40.5

NOTE: Real percent change equals nominal percent change less change in CPI divided by one plus change in CPI.

SOURCE: Derived from Table A1 and CMHC, Canadian Housing Statistics 1976, Table 106.

inflation, lot prices increased at a rate of over
40% in excess of general consumer prices.

It is also important to note that this boom was
widespread. It affected all parts of the country,
although with less force in Quebec and the Atlantic
Provinces, for reasons we deal with later. Sixteen
of the 25 areas shown in Table 2.1 had real price
increases in excess of 30%. Table 2.2 aggregates
the cities by national region, first by decomposing
the country into the five most western and five
most eastern provinces. For the 19 areas from
Ontario to the west coast, the average real price
increase was 53.4%. The nominal increase in this
region was over 100%. This means that dwelling lot
prices from Ontario to the west coast more than
doubled over this short three year period.

B. Dwelling Prices

Table 2.3 records average price changes for exist-
ing properties sold through the multiple listing
service in the same format as was presented for
lot prices and lot price changes in the previous
section. Table 2.4 presents the same data for
newly constructed dwellings financed under the NHA.
It is important to emphasize that there are a
number of biases associated with both these series
which tend to limit their comparability on a city
specific basis. (1) Despite this serious limita-
tion, both series document the dramatic increase
in housing prices over the 1972-1975 period
relative to the previous period as is shown in
Tables 2.3 and 2.4. As well, the tables also
illustrate the national nature of the price
escalations. When comparing the 1972-1975 period
with the previous period, both the MLS and NHA
series indicate a more rapid rate of real price
increases for the latter period in 21 of the 25
cities examined. Tables 2.3 and 2.4 also illus-
trate that dwelling price increases were greatest
in the five provinces west of the Province of
Quebec.

Although there have been many discussions about the
relationship between dwelling price changes and the
affordability of housing, it is a difficult concept
because different groups are affected in different
ways by dwelling price changes. Indeed, some

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(1) For example, a comparison of Table A5 and A8 of
the Appendix reveals that MLS prices in Sherbrooke
decreased by 22.5% over the 1972-1975 period, while
the NHA series indicates an increase of 49.9%. A
discussion of the biases associated with these
series is contained in the Task Force Research
Studies Volume, Chapter 2.

TABLE 2.2

Percent Changes in Average Cost Per Foot Frontage of Fully Paid, Fully Serviced
Lots for New Housing Financed Under the
NHA:
Selected Averages of Urban Areas from Table 2.1

	Percent Change 1966–1969		Percent Change 1969–1972		Percent Change 1972–1975	
	Nominal	Real	Nominal	Real	Nominal	Real
Ottawa to West Coast	42.4	26.3	29.4	16.1	102.9	53.4
Montreal to East Coast	25.2	11.1	21.8	9.3	31.4	-0.6
Atlantic Provinces	17.5	4.3	51.2	35.7	47.0	11.2
Quebec	32.8	17.8	-7.7	-17.1	15.9	-12.3
Ontario	42.8	26.7	35.5	21.6	95.2	47.6
Manitoba Saskatchewan	21.5	7.8	9.2	-2.0	98.2	49.9
Alberta British Columbia	56.8	39.1	26.1	13.2	129.4	73.5
All 25 Urban Areas	38.2	22.7	27.5	14.5	85.7	40.5

SOURCE: Derived from Table A1

TABLE 2.3

Percent Changes in Average Cost of MLS Dwellings,
Selected Averages of Urban Areas

	Percent Change 1966-1969		Percent Change 1969-1972		Percent Change 1972-1975	
	Nominal	Real	Nominal	Real	Nominal	Real
Ottawa to West Coast	35.2	19.9	18.6	6.5	71.7	29.9
Montreal to East Coast	19.2	5.8	26.3	13.4	32.3	--
Atlantic Provinces	30.4	15.7	18.3	6.2	51.7	14.7
Quebec	8.0	-4.1	34.3	20.5	12.8	-14.7
Ontario	30.8	16.0	20.9	8.5	58.3	18.9
Manitoba Saskatchewan	26.3	12.0	9.5	-1.7	90.6	44.1
Alberta British Columbia	55.1	37.6	18.7	6.6	97.8	49.7
All 25 Urban Areas	31.3	16.5	20.5	8.1	62.3	22.7

SOURCE: Derived from Table A5

TABLE 2.4

Percent Changes in the Average Cost of Dwelling Units Financed Under the National Housing Act Selected Averages of Urban Areas

	Percent Change 1966-1969		Percent Change 1969-1972		Percent Change 1972-1975	
	Nominal	Real	Nominal	Real	Nominal	Real
Ottawa to West Coast	32.5	17.5	10.4	-0.8	63.2	23.4
Montreal to East Coast	24.3	10.3	10.0	-1.3	39.2	5.3
Atlantic Provinces	34.6	19.5	13.2	1.6	28.8	-2.6
Quebec	14.0	1.2	6.8	-4.1	49.7	13.2
Ontario	35.6	20.3	13.5	1.9	54.0	16.5
Manitoba Saskatchewan	25.7	11.5	-6.6	-16.2	76.1	33.3
Alberta British Columbia	28.3	13.8	14.2	2.5	81.0	36.9
All 25 Urban Areas	30.5	15.8	10.3	-1.0	57.4	19.2

SOURCE: Derived from Table A8

groups - namely existing owner-occupants through
capital gains - have benefited from the price
increases. Nevertheless, the Task Force wishes to
take the position that the price increases noted
in this chapter are a cause of serious concern.
Over the 1972 to 1975 period personal disposable
income per capita increased at 51.7% which is
significantly less than the nominal housing price
increases in the majority of areas examined in this
chapter.(1) Thus, not only is owner-occupied
housing for the prospective purchaser now signifi-
cantly less affordable relative to other goods and
services, it is also less affordable in an
absolute sense.

C. Dwelling Lot Costs as a Percent of Dwelling Prices

Table 2.5 illustrates the importance of lot costs
in total housing prices, again using data from
newly constructed single detached dwellings
financed under the National Housing Act. Table 2.5
shows that in every area with the exception of
those in the Province of Quebec, lot costs have
increased as a component of housing prices. Table
A9 of the Appendix shows that this change is grad-
ual and consistent among the cities listed and is
not necessarily more predominant in the boom years
of the 1970's. A large increase in the importance
of lot costs is shown in the western region
(Ottawa to west coast) while very little is shown
for cities in the five eastern provinces (Montreal
to east coast). It is also shown in the table that
lot costs as a percentage of total dwelling cost
were highest for Alberta and British Columbia in
1976 at 37.7%, which is more than double the
corresponding figure for 1966.

D. Rankings by City

Table 2.6 completes this chapter with a ranking of
urban areas complied from the previous tables.
Rankings are given for lot costs (1975), change in
lot cost (1972-1975), NHA dwelling prices (1976),
percentage change in NHA dwelling prices (1972-
1975), MLS dwelling prices (1976), percent change
in MLS dwelling prices (1972-1975), and lot cost as
a percentage of total cost (1976).

Other than showing clearly that cities in the
Atlantic Provinces and the Province of Quebec are
near the bottom in terms of lot and housing prices
and in terms of price escalations, Table 2.6 shows
little in the way of clear geographic patterns.
The table does not, for example, strongly support
the notion that the largest cities necessarily

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(1) The percent change in personal disposable
income per capita is derived from CMHC, Canadian
Housing Statistics 1976, Table 23.

TABLE 2.5

Lot Cost as a Percentage of Total Cost:[*] New Single
Family Detached Dwellings Financed Under the National Housing Act
Selected Averages of Urban Areas

	1966	1971	1976
Ottawa to West Coast	18.6	25.1	33.4
Montreal to East Coast	13.1	15.4	14.7
Atlantic Provinces	13.4	18.7	19.6
Quebec	12.7	12.0	9.9
Ontario	19.8	26.0	33.7
Manitoba Saskatchewan	14.1	19.2	26.2
Alberta British Columbia	18.1	26.8	37.7
All 25 Urban Areas	17.2	22.8	28.9

*   The term cost in this and other NHA housing price data
    refers to the cost to the consumer (i.e. price) rather
    than the cost of production. This terminology is awkward
    but represents the standard terminology of NHA data sets.

    SOURCE: Derived from Table A9

TABLE 2.6

Selected Rankings (Highest to Lowest)

Rank	Lot Cost per Linear foot frontage 1975 in $'s		Percentage Change in Lot Cost 1972-1975		NHA Dwelling Prices 1976 in $'s		Percentage Change in NHA Dwelling Prices 1972-1975	
1	Hamilton	(552.50)	Victoria	(187.7)	Victoria	(66,272)	Victoria	(103.3)
2	Toronto	(473.76)	Winnipeg	(154.8)	Edmonton	(61,428)	Calgary	(86.7)
3	Vancouver	(348.12)	Hamilton	(136.0)	Thunder Bay	(60,281)	Winnipeg	(81.6)
4	Kitchener	(341.37)	Vancouver	(127.4)	Calgary	(59,999)	Toronto	(78.2)
5	Victoria	(329.64)	Kingston	(126.9)	Ottawa	(59,453)	Edmonton	(77.0)
6	Ottawa	(318.95)	Kitchener	(116.7)	Toronto	(57,417)	Kitchener	(75.1)
7	Thunder Bay	(275.06)	Ottawa	(115.4)	Winnipeg	(51,352)	Regina	(75.1)
8	Kingston	(264.75)	London	(113.7)	Hamilton	(51,138)	Saskatoon	(71.7)
9	London	(261.86)	Sault SteMarie	(111.5)	Kitchener	(50,663)	Thunder Bay	(65.4)
10	Calgary	(250.59)	Toronto	(114.0)	Peterborough	(49,526)	Peterborough	(64.6)
11	Winnipeg	(246.70)	Calgary	(102.5)	Sault SteMarie	(48,860)	Ottawa	(64.0)
12	St. Catharines	(242.05)	Edmonton	(99.8)	Vancouver	(48,246)	Hamilton	(63.4)
13	Edmonton	(238.14)	Peterborough	(91.2)	St.Catharines	(47,497)	Montreal	(59.1)
14	Peterborough	(216.09)	St.Catharines	(87.9)	Kingston	(46,666)	Vancouver	(56.8)
15	Windsor	(195.81)	Saint John	(84.3)	London	(42,135)	Sault SteMarie	(54.6)
16	Sault SteMarie	(186.48)	Regina	(80.7)	Sudbury	(40,637)	St. Catharines	(53.1)
17	Sudbury	(171.32)	Thunder Bay	(77.7)	Regina	(40,571)	Kingston	(52.3)
18	Regina	(126.51)	Saskatoon	(59.2)	Saskatoon	(37,430)	Quebec City	(49.9)
19	Saskatoon	(111.21)	Montreal	(48.0)	Saint John	(36,691)	Moncton	(41.8)
20	Halifax	(108.80)	Windsor	(41.9)	Windsor	(36,162)	Sherbrooke	(40.0)
21	Saint John	(104.20)	Moncton	(40.7)	Halifax	(35,454)	London	(38.0)
22	Moncton	(103.53)	Sudbury	(19.6)	Montreal	(32,178)	Halifax	(26.7)
23	Quebec City	(51.69)	Halifax	(15.9)	Quebec City	(31,797)	Windsor	(26.6)
24	Montreal	(45.37)	Quebec City	(14.8)	Moncton	(30,329)	Saint John	(17.8)
25	Sherbrooke	(30.66)	Sherbrooke	(-15.1)	Sherbrooke	(30,737)	Sudbury	(12.8)

SOURCE: Tables A1-A9

TABLE 2.6

Selected Rankings (Highest to Lowest)

(continued)

Rank	MLS Dwelling Prices 1976 in $'s		Percentage Change in MLS Dwelling Prices 1972-1975		Lot Cost as a Percent of Total Cost on an NHA Dwelling 1976	
1	Calgary	(70249)	Vancouver	(104.9)	Hamilton	(50.8)
2	Vancouver	(68694)	Victoria	(104.2)	Toronto	(49.4)
3	Toronto	(62805)	Calgary	(102.7)	Vancouver	(47.9)
4	Edmonton	(60956)	Saskatoon	(101.5)	Victoria	(39.2)
5	Victoria	(66062)	Regina	(99.1)	Kitchener	(34.5)
6	Ottawa	(54925)	Edmonton	(79.5)	St. Catharines	(33.1)
7	Hamilton	(50223)	London	(79.0)	Thunder Bay	(32.7)
8	Kitchener	(50195)	Winnipeg	(71.1)	Calgary	(32.5)
9	Saskatoon	(44687)	Toronto	(70.7)	Winnipeg	(32.2)
10	London	(44502)	Peterborough	(68.8)	Edmonton	(31.2)
11	Kingston	(43834)	Saint John	(68.7)	London	(30.4)
12	Thunder Bay	(43694)	Thunder Bay	(68.2)	Kingston	(30.4)
13	Peterborough	(43164)	Hamilton	(65.9)	Ottawa	(30.0)
14	Regina	(41955)	Kingston	(65.0)	Sault Ste Marie	(29.6)
15	Halifax	(41438)	St. Catharines	(60.6)	Sudbury	(28.9)
16	Montreal	(39783)	Kitchener	(58.7)	Peterborough	(27.6)
17	Winnipeg	(39668)	Ottawa	(52.9)	Windsor	(27.3)
18	Windsor	(38646)	Windsor	(51.1)	Regina	(24.3)
19	St. Catharines	(38591)	Halifax	(44.7)	Saskatoon	(22.0)
20	Saint John	(38484)	Montreal	(41.7)	Moncton	(21.7)
21	Sudbury	(36818)	Moncton	(41.6)	Halifax	(19.6)
22	Sault Ste Marie	(36472)	Sudbury	(29.5)	Saint John	(17.4)
23	Quebec City	(34655)	Sault Ste. Marie	(29.4)	Quebec City	(12.9)
24	Moncton	(33586)	Sherbrooke	(19.3)	Montreal	(10.0)
25	Sherbrooke	(30939)	Quebec	(-22.5)	Sherbrooke	(6.8)

SOURCE: Tables A1-A9

13

have the highest prices or the largest price
increases.

This chapter's purpose has been to document the
common trends and inter-city differences in the
price changes and price levels of both dwelling
and lot prices. The analysis which follows will
attempt to explain why the inter-city differences
and similarities revealed by these data have
occurred.

.. Scarcity and the Derived Value of Land

Residential land derives its value from the housing services that are produced (or will be produced) by that land in combination with physical structures. Land and structures, however, are fundamentally different in the critical attribute of scarcity. While producing more structures this year does not reduce the potential number of structures which can be produced in the future, the amount of developable land in any urban area within a specific commuting time from employment centres is fixed.(1) In this sense land is scarce. Land has a limited capacity, for example, to house people at a density of 20 persons per acre within 20 minutes commuting time of an urban core. Once land within that commuting distance is completely developed at that density, continued population growth will dictate either that new residents must reside further from the urban core or that land within the 20 minute boundary must be redeveloped at higher densities. Both changes tend to occur simultaneously in growing urban areas.

Land that is close or interior to urban growing areas thus possesses two important characteristics. First, it is scarce and second, locational advantage makes it superior to land that is far away from any urban area. These characteristics taken together produce a premium on this land. One consequence of this scarcity that is of particular importance for our present purposes can be illustrated by way of a simple stylized example. Suppose that the demand for housing at a given distance from the urban core increases to the extent that consumers are willing to pay a price of 10% more than in the previous year while the cost of building structures remains constant. Since by assumption, the production costs of structures have not changed, there will be no change in the value of the structure. A new structure can always be created at the old cost. Land, however, is scarce and the 10% higher price will be reflected entirely in the value of the building lot. But since the value of the lot is only a small proportion of the total value of the house, this means that the value of the lot will increase by more than 10%. If the lot component of housing price was 25% of the total value, for example, the 10% increase in total value means a 40% increase in lot prices in our simple example. Corresponding negative price changes would occur if demand declined.

---

(1) Note that investments in rapid transit facilities, etc., could increase the amount of land within a fixed commuting distance over the long run.

This "leverage effect" is illustrated in Figure 3.1 where it is assumed that the initial price of a dwelling unit is $80,000 of which $20,000 is the price of the lot. Under the assumption of constant construction costs, a 10% increase in dwelling unit price to $88,000 increases the lot price by the full $8,000 which is 40% of the initial price.

Construction costs do not, of course, remain constant but from the example it may be clearly seen that if total dwelling prices rise proportionately faster than the cost of structures, then the price of a serviced lot must increase as a percentage of the total dwelling unit price. Such an increase in the percentage of final dwelling price accounted for by lot price was shown to have taken place in all urban areas from Ottawa to the west coast in Table 2.5 of Chapter 2.

It should also be noted that the same argument suggests that the price effects of supply restrictions will fall mostly on lot prices as these restrictions create an additional form of scarcity. Restrictive subdivision approval processes, for example, will likely increase serviced lot prices far faster than total housing costs on a percentage basis. Further discussion of this effect is reserved for later chapters.

B. Durability and the Asset Demand for Land

Because land is durable, its value will depend both on the value of current services it is providing and on the value of services it is expected to provide in the future. As with any long-lived asset, the expected value of future services plays a predominant role in determining the current price of land. This predominant role of expectations explains some otherwise puzzling aspects of land price.

Perhaps the least well understood feature of land price is the tendency for the price of raw or undeveloped land to rise persistently. This is explained by noting that even land that has no valuable current use will command a price in the market, sometimes quite a substantial price, in reflection of some expected future high-valued use. In order for this price to exist, a purchaser must believe that buying or investing in this land will yield a return, even if the land were sold before the time when its development is anticipated. This expected return in the early years after purchase, before development occurs, must be in the form of a rise in the price of land - a capital gain, in other words. If the rise in price was not expected, then the purchaser would obviously not buy the land, because it could be bought next year or the year after, for the same price. By the same

FIGURE 3.1

AN ILLUSTRATION OF THE "LEVERAGE EFFECT"
THE EFFECTS OF A 10% INCREASE IN DWELLING PRICE WITH
CONSTANT CONSTRUCTION COSTS.
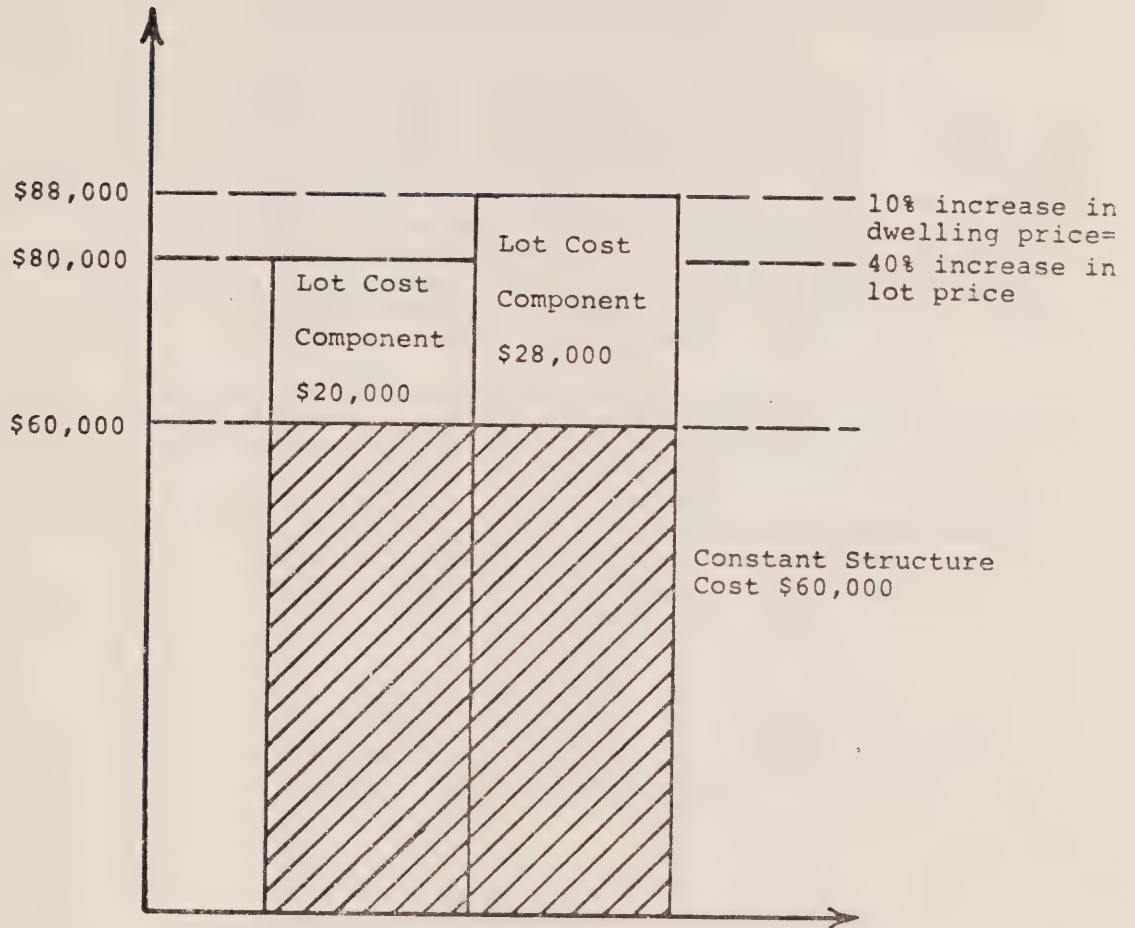
argument, land that is now undeveloped but selling
above its agricultural or raw-land value (because
it is expected to be put into urban residential
use at some time in the future) can never be
expected to diminish in price; its price must be
expected to rise continually.   When price doesn't
rise - and clearly we do sometimes observe
undeveloped land falling as well as rising in
price - it can only be because expectations are
not met.

The basic processes at work in the market for
undeveloped land can probably be best illustrated
by a simple example constructed from an imaginary
world in which there is little uncertainty concern-
ing future events.   In such a world, raw land will
tend to be supplied to the development process in
a manner that results in the rate of return to
owning land being equal to the rate of return
that a land owner could obtain from other assets
of equal risk (e.g., common stocks).

The rate of return on raw land decomposes into the
rate of return earned from farming that land plus
the rate of price appreciation on that land.   If
the sum of these two is less than the rate of
return that could be earned on alternate assets,
owners will tend to sell land and invest their
funds elsewhere.   If the sum is greater than the
returns to alternate assets on the other hand,
owners will continue to hold land.

Schematically, we have:

$$
\begin{bmatrix} \text{rate of} \\ \text{return} \\ \text{from} \\ \text{farming} \end{bmatrix} + \begin{bmatrix} \text{rate of} \\ \text{land} \\ \text{price} \\ \text{appreciation} \end{bmatrix} \begin{matrix} > \\ < \\ = \end{matrix} \begin{bmatrix} \text{rate of} \\ \text{return} \\ \text{on} \\ \text{non-land} \\ \text{assets} \end{bmatrix} \begin{matrix} \text{buy or hold} \\ \text{land} \\ \text{sell land} \\ \\ \text{indifference} \end{matrix}
$$

If, for example, the return on common stocks is 10%
per year and the return from farming is 5%, land
investors will wish to buy land if they believe
that land will on average be appreciating at a rate
greater than 5% per year.

In urban areas, the value of land in residential
use far exceeds the value of land in farming.   The
former can easily be 30 times the latter in our
larger urban areas.   The point of the previous
paragraph is simply that the behaviour of land
investors will tend to cause a gradual transition
from farming to residential value over a long
period of time based on our imagined assumption
that investors have good foresight.   Suppose, for
example, that a certain piece of farm land will be

required for residential use in the year 2000 at
ten times the price it is presently worth in
farming. Present land investors will be quick to
bid up the price of that land in excess of
agricultural value. If investors have good fore-
sight, therefore, we should tend to observe the
price of land around growing urban areas beginning
to appreciate above agricultural value 10 to 30
years prior to development and continue to appreci-
ate at a gradual rate up until the decision to
develop. Note again that land prices should never
fall in such a world. Land investors will thus
tend to even out the rate of price appreciation by
beginning the process years ahead of development.

The optimal time to develop is also determined
within this process. The holding of raw land off
the market as previously noted will occur if the
expected rate of return from withholding this land
is greater than the rate of return on alternative
assets of equal risk. This expected rate of return
is a function of both the current market price of
land as well as expected prices in the future. For
example, if there is a surge in the demand for
residential units today, then more land will be
supplied today, as current prices rise, provided
that basic expectations about future prices are
unchanged. If future land prices are also
expected to rise a supply response as a result
of current price increases may, however, not
necessarily be forthcoming. The timing of develop-
ment depends on the precise relationship between
the change in the current price and the change in
price expectations regarding the future. Alterna-
tively stated, the optimal time for development
has arrived when the expected returns from
continuing to hold land fall below the expected
returns on holding alternative assets of equal
risk.

As the anticipated time at which a parcel of land
is expected to be ripe for building comes close, a
number of development processes must begin. These
may include applications for zoning or subdivision,
and possibly the provision of various servicing
facilities. Each of these aspects of development
takes resources which cost money, so that each must
have been (or should have been) taken into account
when the earlier prices of the land were establish-
ed. As long as the land is still not yielding any
housing services an annual capital gain on the
underlying investment (including these subsequent
development expenditures) must be expected.

When residential land is finally built upon, the
property need no longer be expected to yield a

capital gain for it to have value. Now, the asset
is ready to yield a flow of services with some
current value. If the value of these services is
not expected to change in the future, and if the
rate of return on assets generally does not vary,
then the capital value of the property should
remain more-or-less stable. When building costs
and other development costs are deducted from this
capital value, a "residual" land value is left,
which acts as a target value for the land market
as prices are set on land earlier in the develop-
ment process.

C. Economic Rent ("Unearned Increment", "Residual Value")

The basics of this process seem to be fairly well
understood. What is often misunderstood is the
causality at work in this process. It is often
suggested by some analysts, for example, that
land investors are the cause of high residential
land prices. Such a point of view reveals no
understanding of what economists call economic rent
or simply rent. Rent is defined as the difference
between the price commanded by a resource (human or
non-human) and what it could earn in its next best
opportunity. For our purposes, let us define the
difference between the price of land in residential
use and in farming use as the rent component of
residential land prices. ("Rent" is often known by
a number of aliases including "unearned increment"
and "residual value". But since these latter two
terms are often used in different ways by different
people we will stick with the term "rent"). Land
that is close or interior to growing urban areas
possesses two characteristics: first, it is scarce
as noted above and second, locational advantages
make it superior to land that is far away from any
urban area. These characteristics taken together
produce rents on this land. Additional rents can
be generated by restrictive approval processes or
monopolistic developers as will be discussed later.
This rent component of land price is not at all
insignificant in large urban areas and can easily
grow to the point where land in residential use is
worth 30 times the value of land in agricultural
use.

The important point is that this rent arises from
the scarcity and from the locational advantages of
particular land parcels. It does not arise from
the activities of competitive land investors but
rather quite the opposite. Land investors exist
because of the land rents that will eventually be
associated with farmland proximate to growing
urban areas.

D. The Long-run Determi-
    nants of Residential
    Land Prices

The discussion so far in this chapter has dealt
with the fundamental principle of residential land-
price determination: that the price of land is
derived from the market value of the housing
services to which the land ultimately contributes.
The market value of housing services in any urban
area and at any location within that area in turn
depends on how heavy the demand is for housing in
that city and at that location within the city,
and on how many housing units of various kinds are
available. In short, the price of housing services
at any time depends on the relationship between
the demand for housing and the supply. For any
given level of demand, a larger supply of services
will mean that the price of a standard unit of
housing will be less. This doesn't necessarily
mean that people will spend less of their budget on
housing; it means simply that a dollar spent on
housing will buy better housing, or more housing
services.

To explain the level of house prices - and there-
fore land prices - in any given urban area requires
an understanding of both the demand forces in that
area and the factors governing supply. The condi-
tion of demand and supply is not determined by
local circumstances alone, but there may be some
specific local or provincial factors that cause
price differences among otherwise quite similar
cities.

For example, regions experience different growth
rates and are subjected to different economic
pressures. Demand in a lagging region might be
especially weak because of relatively low income
levels or outward population movements. Or, the
rate at which land is made available for develop-
ment may vary from region to region, because of
different provincial planning legislation or
different municipal attitudes towards development.
These factors will affect the supply of land for
housing, and differences in their supply effect
across the country will help contribute to house-
price differences.

On the other hand, many of the changing influences
on demand and supply are country-wide in their
effects. These include such factors as the general
state of the national and international economy,
citizen attitudes towards certain kinds of
developments, the municipal response to fiscal
pressures, federal tax legislation and the
structure of land development industry.

During the course of our work, we have examined the
role that many of these basic factors appear to

play in the determination of land prices. The
results of this study are summarized in the
subsequent chapters of this Report.

It is necessary to stress, however, that changes
in these underlying demand and supply factors tend
to change house and residential land prices only
slowly. Abrupt movements in the price of housing
and in the residual price of land, such as we
experienced in Canada early in the seventies, can-
not be explained simply by changes in the structure
of the land development process, or by changes in
our demographic profile. Because this is not well
understood, we devote the whole of the next chapter
to a discussion of short-run price fluctuations and
the important role played in the existing stock of
housing in determining prices in the short run.(1)

In Chapter 5 we examine more explicitly the factors
responsible for the price boom of 1972-75. Only
after that, in later chapters, do we return to a
consideration of fundamental supply factors that
may influence the long-run level of house and land
prices.

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(1) For a more detailed discussion of the determi-
nants of land prices, in both the short and the
long run, the interested reader is referred to
Chapter 3, Research Studies Volume.

A. The Production of New Housing versus the Total Housing Stock (Existing Stock plus New Production)

In spite of the importance of the level of housing and residential land prices in and around our cities, it is not simply the level of these prices but their rapid change over time that most attracts our attention. In fact, it was primarily the rapid upward rise in these prices over a short two or three year period beginning about 1972 that led to the formation of this Task Force. In the future, the deterioration in inflation-corrected real housing prices that has already begun may turn out to be one of our most pressing concerns. Rapid or short-run price changes that are generally unanticipated wreak havoc among our savings and investment plans, cause unexpected redistributions of wealth and, in recent years, have led to heavy personal financial commitments in dwelling units, commitments that may prove difficult to meet as incomes fail to reach expected levels.

The most common explanations of the recent price boom have focused on problems in the supply of new housing, with both monopolistic developers and sluggish municipalities having been frequently fingered as culprits who have slowed down, or at least not expanded, the rate at which serviced residential lots were made available to the building market. In our view, any such explanation of short-run price fluctuations that concentrates on the rate at which newly serviced land is being supplied is based on a fundamental misinterpretation of the land and housing market. Supply-retarding actors in the land market, such as monopolists or reluctant municipalities, may indeed have important effects on housing and land prices over long periods. But the primary explanation for rapid, short-run price movements of the sort we have recently experienced does not lie in the supply of new housing, for reasons that we now turn to examine.

Fundamentally, the reason why changing conditions of demand for or supply of newly serviced land in an urban market will not dramatically influence land or housing prices within periods of several years or less is that these prices are determined by the forces of demand and supply throughout the whole area, and not just by conditions on the developing fringe. As can be seen from Table 4.1, the annual production of new dwelling units in and around cities was only a small percentage of the stock of dwelling units that already existed in those cities in 1974 - under 10% in all cases illustrated and generally in the order of 5%. Because, in most urban areas, the stocks of existing dwelling units and residential land already in use are twenty or thirty times as large

TABLE 4.1

STOCKS AND FLOWS, 1974[1]

City	Stock of Dwelling Units	Dwelling Completions	Gross % Change in Dwelling Stock
Calgary	149,738	7,085	4.7
Chicoutimi-Jonquiere	26,733	1,467	5.5
Edmonton	154,621	7,668	5.0
Halifax	57,312	3,255	5.7
Hamilton	137,248	7,519	5.5
Kitchener	75,945	4,387	5.8
London	82,133	3,724	4.5
Montreal	778,962	27,726	3.6
Ottawa-Hull	180,524	15,036	8.3
Quebec City	99,886	4,422	4.4
Regina	47,400	1,372	2.9
St. Catharines-Niagara	60,801	4,109	6.8
Saint John	22,759	1,230	5.4
St. John's	21,369	1,415	6.6
Saskatoon	42,929	1,274	3.0
Sudbury	30,051	786	2.6
Thunder Bay	34,957	1,171	3.3
Toronto	773,111	39,448	5.1
Vancouver	235,456	15,814	6.7
Victoria	41,491	4,000	9.6
Windsor	68,140	2,293	3.4
Winnipeg	169,984	8,680	5.1

(1) It should also be noted that 1974 was a record-breaking year
     for dwelling completions in Canada at 257,000 units.

        SOURCE: C.M.H.C., Canadian Housing Statistics 1976,
                     Tables 7 and 121. See these tables for precise
   definitions of each data set.

as the annual supply of new dwellings or newly
serviced residential land, the opportunity to
provide for new housing in the face of rising
accommodation prices through the redevelopment of
existing residential property, or through more
intensive use of existing dwelling units, is
relatively great. This capacity for the
redevelopment or more intensive use of the existing
housing stock helps to stabilize the prices of
housing and land even when sudden changes in new
inward migration or household formation increase
the demand for dwelling units in any given urban
area with no increase in the rate of new-land
supply, or when the annual supply of newly serviced
land is reduced because of government-approval
delays, inadequate servicing facilities, or the
emergence of monopolistic developers.

If the increased demand or reduced supply persists,
the cumulative effect over a period of many years
will necessarily be to raise housing and land
prices above the level they would otherwise reach;
but, in the few years after the demand or supply
changes, the price effect will likely be muted by
adjustments in use of existing stock. Consider
the following example. Suppose that in some urban
area annual production of new dwelling units is as
much as ten percent of existing units, and that
the supply of these units is suddenly reduced by
50 percent with no change in the annual new demand
for housing. This 50 percent reduction in the
production of new housing is not, of course, a 50
percent reduction in the "supply of housing". It
is in fact, only a five percent reduction in the
supply of housing (five percent equals 50 percent
of ten percent). In this case, only a five per-
cant intensification a year in the use of existing
residential land will be sufficient to offset the
effect of the reduction in new supply. A five
percent intensification means that housing which
previously held 100 persons now holds 105 persons.
Of course, there must be some price rise in order
to encourage the more intense use of existing
property, but this rise is much smaller than would
occur if there were no adjustment in the use of
existing stock.

This dominating effect of the existing stock is
shown in Figure 4.1 where it is initially assumed
that new production will add 10,000 units to the
existing stock of 100,000 units. A 50 percent cut
in this new production would then leave the end-of-
year housing only about five percent short of what
it otherwise would have been.

FIGURE 4.1

The Effects of a 50% Cut in New Housing Production
on the Housing Stock (assuming New Production was
Originally 10% of the Stock.)

110,000 — — — — — — — — — — — — — 50% cut in new
production. =
NEW
PRODUCTION
100,000 — — — — 5% cut in the
housing stock.

EXISTING
STOCK
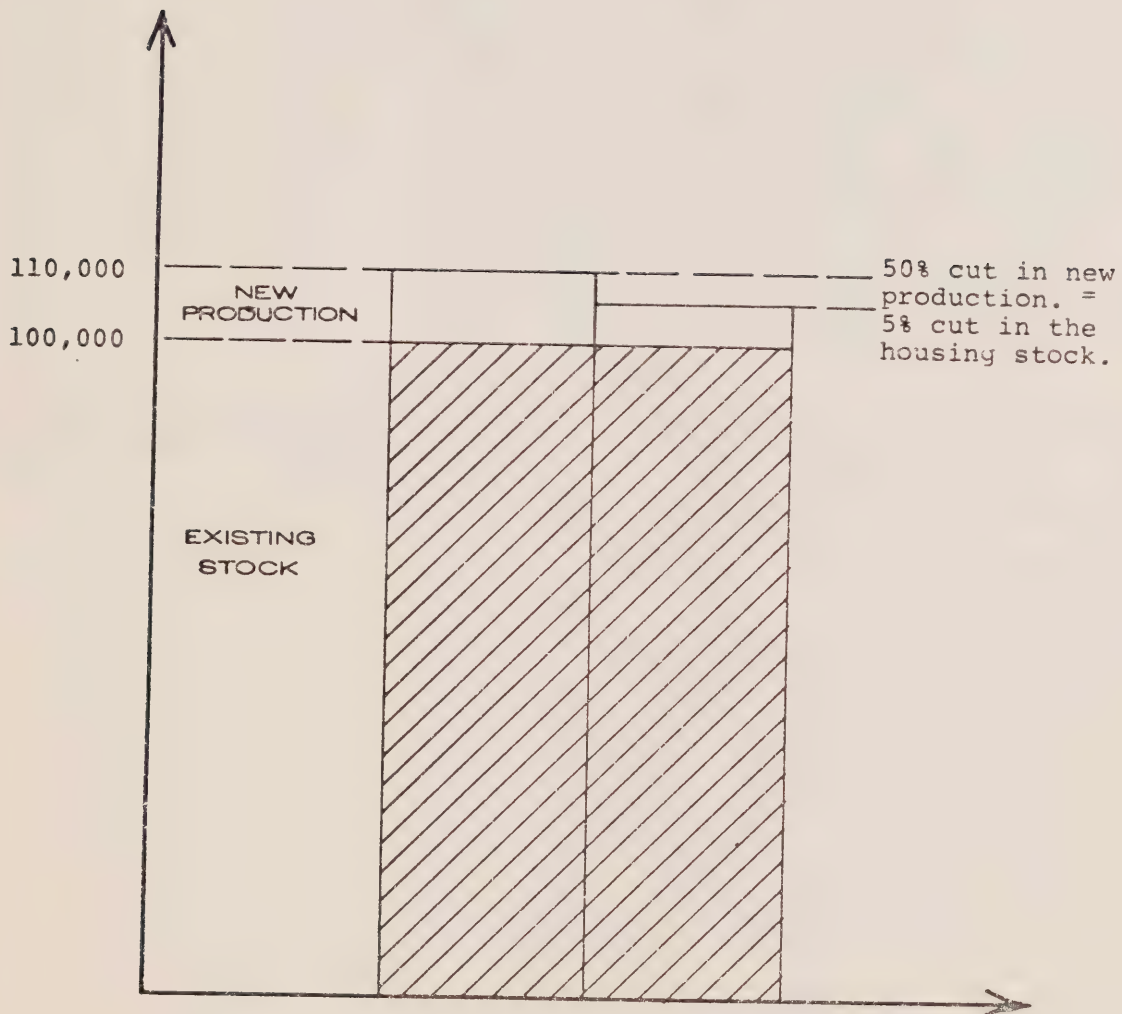
Many people are skeptical about this argument when
it is presented on a theoretical level. Yet in
many applied situations, those same individuals are
quick to recognize the principle involved. Perhaps
one example is in order. Suppose we were to ask a
person how the sudden introduction of 100 new
families into an urban area would affect the price
of housing in that area. Before answering, that
person would likely want to know the size of the
urban area in question. Alternatively, he might
respond that the 100 new families would generate no
measurable effects in Toronto but would likely
generate large price increases in Fort McLeod.
Intuitively, he would know that the price effects
would be in inverse proportion to the size of the
existing housing stock. The large stock in Toronto
could easily absorb 100 additional families while
the small stock in Fort McLeod could not. A cut in
new production of 100 units is, of course,
essentially the same as the introduction of the 100
new families. In both cases, the size of the price
effects are determined largely by the size of the
number 100 relative to the size of the existing
stock of housing.

B. The Substitutibility Issue

The precise degree to which new house prices would
rise following a cut in new production as noted
above depends on two important factors. The first
is the degree of substitutibility between new and
existing residential dwelling units. If the degree
of substitutibility is high, the market for newly
constructed and existing residential units can be
considered one market. If, on the other hand, the
degree of substitutibility is low, two inter-
related but somewhat distinct markets exist. In
the latter case the moderating effect of the exist-
ing stock on the price of residential lots and
newly constructed dwelling units will be smaller.
The disruption in new production would thus lead
to large increases in the price of new housing
while leaving existing housing relatively
unaffected. If the degree of substitutibility were
high, large cuts in new production would lead to
relatively small increases in the price of both
new and existing housing.

The data in Table 4.2 on recent price indices
strongly support the view that the price of old
and new dwelling units move together.

Table 4.2 shows housing price changes from 1971 in
three different times series. The first column
gives the N.H.A. series for new houses financed
under N.H.A. and tends to reflect lower priced
new houses in the cities listed. The second column
gives the M.L.S. series which is completely

TABLE 4.2

Price Indices, 1971-1976

	% Annual Increase 1971-1976 of Price of N.H.A. Dwelling	% Annual Increase 1971-1976 of Price of M.L.S. Dwelling	% Annual Increase 1971-1976 of Stat. Can. new house price index
Edmonton	19.0	20.0	19.7
Calgary	20.2	24.3	19.4
Winnipeg	18.9	16.5	14.8
Toronto	12.0	14.6	12.6
Ottawa	13.9	13.1	14.0
Montreal	12.5	10.9	15.0
Average	16.1	16.6	15.9

SOURCE: Canadian Housing Statistics, CMHC, various years.

dominated by prices of old houses. The third
column gives the Statistics Canada New House Price
index which is an average of new house prices over
the entire price range and is not limited to the
lower priced houses under the N.H.A. series.

It is apparent from Table 4.2 that these three
series move rather closely together. On average,
the M.L.S. series exceeds the Statistics Canada
series by only .7% and the N.H.A. series by only
.5%.

In recent years, an increasing amount of empirical
research has accumulated that helps us to under-
stand the sense in which an urban area may be
regarded as one large housing market even though
individual neighbourhoods within the city may have
distinctive features. Much of the research is
grounded in the view that a dwelling unit can best
be defined in terms of various attributes associa-
ted with the property. These attributes include
such factors as the size of the dwelling, the size
of its lot, the age of the building, the nature of
its construction, the type of neighbourhood in
which it is situated, the accessibility to various
public facilities, the nature of the environment
and so on. When a dwelling unit is bought or sold
it is in fact some cluster of these attributes
that is bought and sold, and the market price is
determined by the magnitude and mix of the
attributes.

If the price of a dwelling unit is indeed a func-
tion of these various attributes, then it should be
possible to determine the extent to which different
amounts of any one attribute contribute to or
detract from the market value. Much empirical
research on housing markets has been devoted to
precisely this point, with multiple regression
equations having been used in study after study to
estimate the value of varying an attribute by some
unit amount. These studies have been aimed at
estimating "hedonic" price functions, where the
word "hedonic" suggests that the real benefit or
value of a dwelling unit derives from the
separately listed attributes.

Although house prices and types may vary from
neighbourhood to neighbourhood, if each attribute
has only one price attached to it across the whole
of the area, then it makes sense to regard the
whole area as only one market. The test of the
one-market hypothesis lies in the adequacy of the
attributes' function in explaining house-price
variations. If such a function, with each attri-
bute assumed to have the same value throughout the

urban area, does not explain the variation in house prices across the sample area, then doubt is cast on the one-market view, and it might be more appropriate to think of the city as consisting of more-or-less separate housing markets.

In the reported research, the attribute functions applied to whole cities work well in explaining dwelling prices. Typical of these studies is one that was done in Winnipeg.(1) The authors conclude that "The hedonic price functions... accounted for a very large proportion of the variance of home prices. ...We view our hedonic price estimations as satisfactory in terms of explaining the variability of house prices."(2)

A more direct test of the one-market versus segmented markets hypotheses was conducted by two British economists for the English city of Bristol. (3)

Two tests of the one-market hypothesis were conducted in the study. The first test was to permit attributes to take different prices within each of what were prime candidates as separate sub-markets. The result of this test was that housing price differences were not better explained using the assumption that attributes were priced differently in different "neighbourhoods". The second test was to place a separate variable for each possible sub-market in the overall one-market attributes equation to see if this neighbourhood-specific variable was important in explaining the price of houses. It turned out that it was not. With respect to the first test, the authors concluded: "The subdivision of the market into neighbourhood groupings consequently did not significantly improve the explanation of house prices";(4) with respect to the second test they found "that the general assumption of a number of sub-markets was invalid".(5) Their overall conclusion is that "The relative price of houses

(1) Carvalho M, Hum D, Sahay K, and Falconer D: "On the Determinants of Residential Property Values". Plan Canada, Vol. 16, No. 3 and 4 (Sept./Dec. 1976).

(2) Ibid., pp. 195-6.

(3) Ball MR and Kirwan RM: "Accessibility and Supply Constraints in the Urban Housing Market". Urban Studies, Vol. 14 (1977).

(4) Ibid., p. 22

(5) Ibid., p. 22

throughout the area could be explained by varia-
tions in their attribute mix (once accurate
measures of size and condition were available) with
uniform prices. The failure to identify separate
price structures therefore justifies the conclusion
that the owner-occupied sector of the Bristol
housing market was not divided into sub-markets."
(1)

The evidence therefore appears to warrant our
considering each urban area as one housing market
rather than a series of sub-markets.

C. The Intensification Issue

The degree to which new and existing house prices
would rise following a cut in new production also
depends on exactly how rapidly a more (or less)
intensive use of existing residential land will
occur in the face of price changes. To understand
the importance of this point, consider an area in
which, typically, demand for accommodation is
expanding at five percent a year, and in which
this new demand is being met by the production of
new housing, also at five percent a year of exist-
ing stock. Ignoring inflation, the price of new
housing should remain approximately constant in
this area.

Now suppose that for some unforeseen reason, new
housing production falls by a full 50 percent in
the current year. A strike in the construction
industry or a suddenly-more-restrictive approval
process might cause this reduction. Because the
overall supply of housing in this area includes the
existing stock, and not just one year's new produc-
tion, this sudden supply restriction should be
regarded as a 2.5 percent fall in housing supply,
and not as a 50 percent fall.

The price effect of this reduction in supply, below
what it would otherwise have been, will depend on
how rapidly the use of the previously existing
residential area is intensified. At one extreme,
if physical or legal restraints absolutely prohibit
any intensification of use, then price must rise
sufficiently to eliminate one-half of the new
demand for dwelling space. This could mean large
price increases during the year. At the other
extreme if physical or legal constraints are
negligible, and intensification occurs with only
the hint of a price rise, then the cutback in new
supply will have virtually no price effect in the
first year.

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(1) Op. cit., p.30(3)

The question is, where typically would the balance
be struck between the annual price increase and the
annual percentage change in residential-use
intensity? Some economists believe that an inten-
sification in the order of two percent a year
could be achieved with no more than a three or four
percent increase in dwelling prices. (They would
argue that there are usually vacancy rates in
apartments in the order of one percent that help
permit intensification, and that in the face of
modest price rises young people especially, who
otherwise would take an apartment on their own,
will remain with their parents or double up in
apartments.) Others would argue that the typical
response would likely involve a little less inten-
sification in any one year and a little higher
price rise. There seems to be quite widespread
agreement, however, that some stock adjustment, or
intensification, will occur, and that even
dramatically large reductions in the rate of new-
land supply will not lead to correspondingly
dramatic changes in housing prices, in the short
run.

However, land prices, for reasons we have noted
above in Chapter 3 will fluctuate more than housing
prices, on a percentage basis. This greater
volatility occurs because the price of land is only
a small percent of the total price of a house, and
it is a residual, derived from the price of houses.
Thus a three percent increase in the price of
housing would get translated into a 12 percent
increase in the price of serviced lots, if these
lots accounted initially for roughly one-quarter
of the house price and assuming none of the costs
of housing production has risen.

D. The Relevance of the
Stock-Flow Distinction
to the Various
Conspiracy Theories

The importance of distinguishing between changes in
stock supply and changes in new production (flow
supply) is widely accepted among land economists.
Other housing and land market analysts, however,
have been slow to embrace this concept. Failure to
do so leads to an extremely important error, which
is to significantly overestimate the role of new
housing supply in causing short-run price fluctua-
tions. Some analysts, for example, have suggested
that "monopoly developers" were responsible for
the 1973-1975 boom as noted earlier. Others have
suggested that government impediments to develop-
ment were to blame. Both theories are asserting
that disruptions in new supply were capable of
causing prices (both new and existing) to rise at
30-40 percent per year at the top of the boom.
Economists who have adopted the stock supply view-
point do not believe this to be the case and

immediately look elsewhere for the major explana-
tion of the boom. The next chapter of this Report
will, in fact, provide just such an alternate
explanation.

The plodding forces of demand and supply that over long periods determine the level of house and residential land prices in Canada gave way in the early seventies to more aggressive and immediate forces that for a while dominated the market. Within a span of only a couple of years, the relative desirability of land and of residential property as an asset increased dramatically: owners of land and developed property would sell only at higher prices; buyers were prepared to pay prices for property that often exceeded the asking price in order to ensure that they and not someone else was the successful bidder. Although the intensity of the price rise during these years varied from region-to-region, the phenomenal change in attitude that underlay the price boom was nation-wide.

Across the country, as the data in Table A5 show, the Multiple Listing Service (MLS) dwelling-price index rose 62.3 percent between 1972 and 1975, whereas it had increased only 20.5 percent between 1969 and 1972, and only 31.3 percent between 1966 and 1969. In Montreal, where the overall price rise was more moderate, the change between 1972 and 1975 was still 41.7 percent compared with virtually stable MLS prices from 1966 through to 1972; and in Halifax, where again the boom was more constrained than in the central and western parts of Canada, the price increase of 44.7 percent between 1972 and 1975 was significantly above the 7.5 percent increase from 1969 to 1972 and the 29.0 percent increase between 1966 and 1969.

What happened during this period of booming prices was that housing and land were revalued relative to other assets in the market. Expectations of even higher future prices fueled a speculative bubble, while depressed rates of return on other assets cranked up the demand for residential real estate. Demand factors, which had been working away in Canada for a number of years, underwrote the widespread expectation that housing prices were going even higher, while world-wide inflation served, at least temporarily, to reduce the attractiveness of alternative forms of investment.

A. Demographic Factors

The most basic of the forces at work during the period leading up to the price boom was the growth in households and families, which is illustrated

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(1) Many of the points made in this chapter were made in 1974 by Robert Adamson, Vice-President of CMHC, in a speech "Trends in Housing Prices and Costs 1971-1974", to the Conference Board of Canada.

in Table 5.1.

Of special interest is not so much the increasing
rate of total family formation indicated by the
data in Table 5.1 but the large increase in the
rate of young family formation. Families with
heads of ages 25-34 were only growing at .6% per
year in the early 1960's but were growing in
number at a rate of 5.0% per year in the early
1970's, almost ten times as fast. The reason this
would seem to be important is that these young
families are the important net demanders of
additional housing and owner-occupied housing in
particular.

Some of this increase results from the well-known
post-war baby boom and should have been foreseen.
But many of the participants in the housing
industry, including planners as well as developers,
have told the Task Force that the degree of family
formation was not anticipated to be nearly as large
as it was. To the extent that this is true, demo-
graphic factors can be labeled as one factor that
caused an unanticipated increase in the consumption
good demand for housing during the early 1970's and
contributed, therefore, to rapid price increases
for land and housing.

Demographic factors also provide an important part
of the explanation for the different behaviour of
prices in central and western Canada from those in
Quebec and the Maritimes. For example, between
1961 and 1971, the population of Ontario, Alberta
and British Columbia increased by 23.5 percent,
22.2 percent and 34.1 percent respectively. By
contrast, the growth in population in all three
Maritime provinces was 7.0 percent or less over
this same ten-year period, and in Quebec it was
14.2 percent, well below the Canadian average. The
1977 Economic Council of Canada Report, Living
Together: A Study in Regional Disparities, from
which these data are taken, notes that "for many
years, the southern parts of Ontario and British
Columbia have been the destinations preferred by
foreign immigrants and Canadian migrants alike.
Projections based on demographic trends show that
by 1985 these are the only two regions where the
working-age population will be increasing" (p.32).
Given this background, it is quite understandable
that the asset revaluation that raised house
prices across Canada after 1972 had a less dramatic
effect in the slower growing eastern part of the
country.

TABLE 5.1

Annual Growth Rate of Families

	1956-61	1961-66	1966-71	1971-76
All Families	2.2	1.8	2.3	2.5
Families with age of head 25-34	N.A.	.6	3.5	5.0
Families with age of head 25-64	N.A.	1.7	2.1	2.4

SOURCE: Canadian Housing Statistics 1976-CMHC, Tables 114, 115

B. Institutional Factors
A second set of factors that contributed to large increases in demand during the early 1970's can be loosely referred to as institutional factors. Some of these changes were actually instituted in the late 1960's but were not particularly important until the 1970's. Changes in the mortgage market were of special importance.

Because of the majority of dwellings purchased for owner-occupancy are financed through the mortgage market, the availability of credit, the cost of credit and downpayment requirements are important variables in the demand for housing. Figure 5.1 illustrates that the value of residential mortgage approvals over the period 1967 to 1976 increased from 1.8 billion to 10.2 billion dollars per annum - a fivefold increase. This rapid increase in available funds has had an important effect on the downpayments and cost of mortgage credit available to the dwelling purchaser.

Table 5.2 provides evidence on the easing of downpayments on NHA mortgage loans.

Table 5.2 illustrates the decline in average downpayments on NHA financed dwellings in relation to income since 1967. Although a substantial increase is recorded in 1974, it is still modest compared to downpayment requirements in the late sixties.

Although the easing of downpayments on NHA loans was significant, a more important factor was the 1970 federal legislation which allowed mortgage companies to issue privately insured high ratio (low downpayment) mortgages. Until the legislation was passed, mortgage loans of greater than 75 percent of property value were not generally permitted unless insured by CMHC. In 1972, two private mortgage insurance companies were created (a third had been in business for some time), greatly facilitating the granting of high ratio mortgages.

The importance of this is shown in Table 5.3.

Table 5.3 clearly illustrates the tremendous expansion of high ratio mortgages since 1967. This expansion made low downpayment mortgage loans available in market areas where the NHA maximum lending limit was too stringent.

Government policy in recent years has also tended to increase the demand for owner-occupied dwellings. As a result of tax reform in 1972, a capital gains tax was introduced. One important exemption from the tax was the capital gains accruing on an owner-occupied dwelling. The

FIGURE 5.1

Volume of Residential Mortgage Approval in Billions
of Dollars
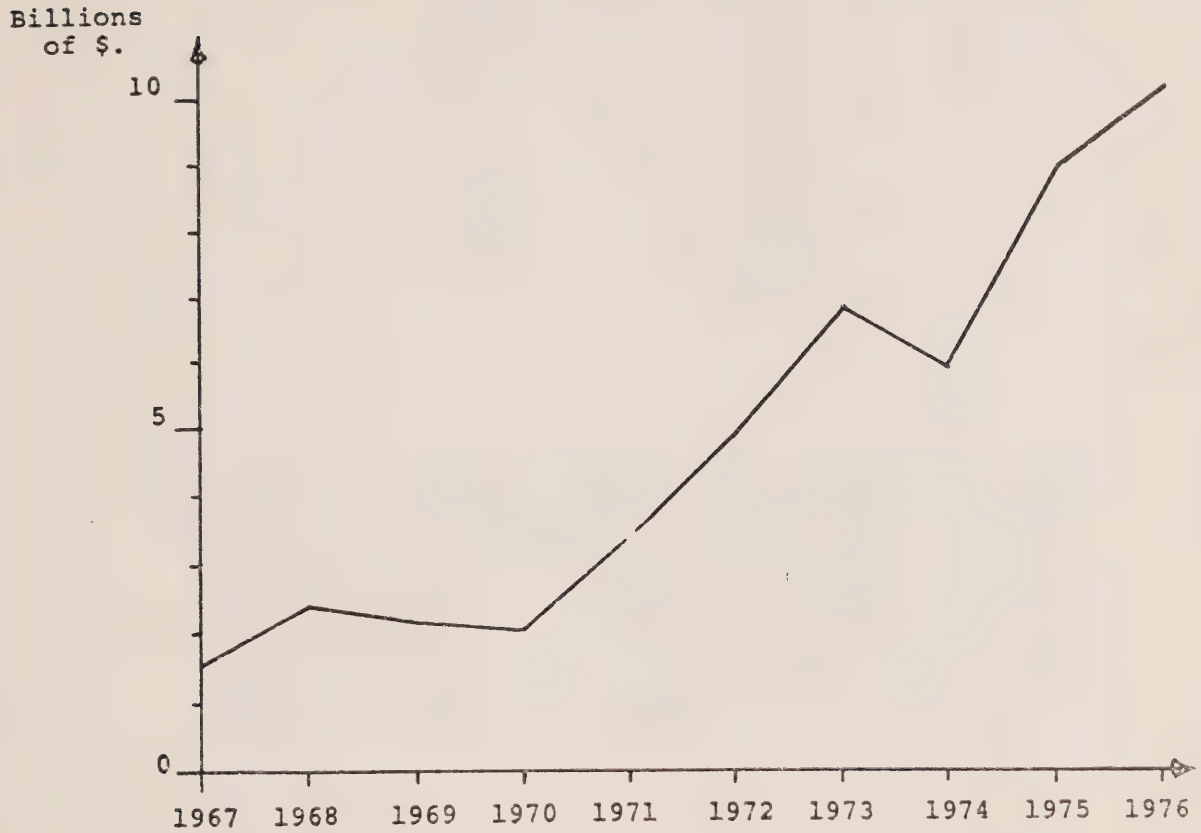
SOURCE: CMHC, Canadian Housing Statistics
            VARIOUS YEARS

TABLE 5.2

Average Down payments on NHA Loans
to Median Family Income

1961	51.7
1963	49.7
1965	49.6
1967	63.1
1969	54.9
1971	42.3
1973	39.5
1974	48.9
1975	48.3
1976	34.1

NOTE: The 1974 to 1976 ratios are estimated. Until 1973
CMHC listed average downpayments. Subsequent to
1974 average downpayments for direct CMHC lending
and approved lender lending are listed. The two
are combined into an average with weights of .16 and
.84 respectively. These weights are based on the
proportions of the NHA market held by the respective
groups over the period 1971-1973. In addition, the
1976 income was estimated based on increases in
personal income per capita.

SOURCE: Derived from CMHC, Canadian Housing
Statistics, various years.

TABLE 5.3

HIGH RATIO LENDING

	1967	1968	1969	1970	1971	1972	1973	1974	1975
Percentage of total value of all mortgage approvals insured by NHA and private sources	20.5	32.7	26.5	36.9	45.4	48.6	56.6	56.8	65.5
Percentage of total value of all mortgage approvals insured by private sources					5.4	12.6	34.0	37.5	30.8
Percentage of total value of all mortgage approvals which are high ratio	20.5	32.7	26.5	36.9	45.4	48.6	55.4	57.5	40.7
Percentage of value of all high ratio mortgage approvals insured by private sources	3.8	2.0	1.1	1.3	5.5	12.8	59.0	69.5	69.0

SOURCE: Task Force Research Studies Volume, Chapter 7.

effect of this tax was to raise the after tax rate
of return on an owner-occupied dwelling relative to
other assets. This, of course, encouraged
Canadians to demand more owner-occupied dwellings
than would have been the case before the tax was
levied. After January 1st, 1972, the only way to
make a significant capital gain tax free was to own
and then sell a house. Other federal and provin-
cial programs which offered below market rates of
mortgage financing for those purchasing modestly
priced dwellings also served to stimulate the
demand for owner-occupied dwelling units.(1)
Further demand stimulus was provided by government
programs which provided cash grants to dwelling
purchasers.(2) The only program of note which
tended to reduce demand was the federal govern-
ment's Registered Home Ownership Savings Plan which
allowed those who did not currently or previously
own a dwelling unit tax deductible contributions
of $1,000 per annum up to a maximum of $10,000
towards the purchase of a dwelling unit. The
impact of this is to encourage households to delay
dwelling purchase.

These institutional changes had two principal
effects. First, exemption from capital gains tax-
ation raised the asset demand for land and housing.
Second, changes in the mortgage market enfranchised
a great number of people (particularly younger
people with little savings) with the ability to
purchase housing. Further, as prices began to rise
in the early 1970's many potential home buyers were
not crowded out of the market as they would have
been if high ratio mortgages had not been
introduced.

2. Incomes, Inflation and Interest Rates

While important, these demographic and institution-
al factors were likely minor compared to the
accelerating rate of inflation accompanied by
substantial growth in real incomes. Both changes
are illustrated in Table 5.4. Note from this table
that not only did inflation begin to accelerate in
the early 1970's but real income changes were
significantly higher in 1971, 1972 and 1973 than in
any other year since 1962. These changes are shown
graphically in Figure 5.2 for the 11 year period
1966-1976. The hatched area in Figure 5.2 depicts

(1) A notable example is the Federal Government's
Assisted Home Ownership Program.

(2) Examples include the Federal Government $500
grant for first-time owners of newly constructed
modestly priced dwellings and the Ontario Govern-
ment $1500 grant to first-time purchasers of a
dwelling unit. Both were in effect in 1974.

TABLE 5.4

YEAR	CPI (1971=100)	% CHANGE IN CPI	% CHANGE IN REAL DISPOSABLE INCOME PER HOUSEHOLD
1956	68.5		
1957	70.7	3.2	.3
1958	72.6	2.7	1.2
1959	73.4	1.1	.5
1960	74.3	1.2	.2
1961	75.0	.9	-2.6
1962	75.9	1.2	5.1
1963	77.2	1.7	1.8
1964	78.6	1.8	1.5
1965	80.5	2.4	4.4
1966	83.5	3.7	3.4
1967	86.5	3.6	1.2
1968	90.0	4.0	1.2
1969	94.1	4.6	.9
1970	97.3	3.3	.0
1971	100.0	2.9	4.7
1972	104.8	4.8	5.2
1973	112.8	7.5	4.9
1974	125.0	10.9	2.2
1975	138.5	10.8	2.2
1976	148.9	7.5	2.0

SOURCE: Task Force Research Studies Volume,
           Chapter 7.

FIGURE 5.2

% CHANGE IN REAL DISPOSABLE INCOME PER HOUSEHOLD
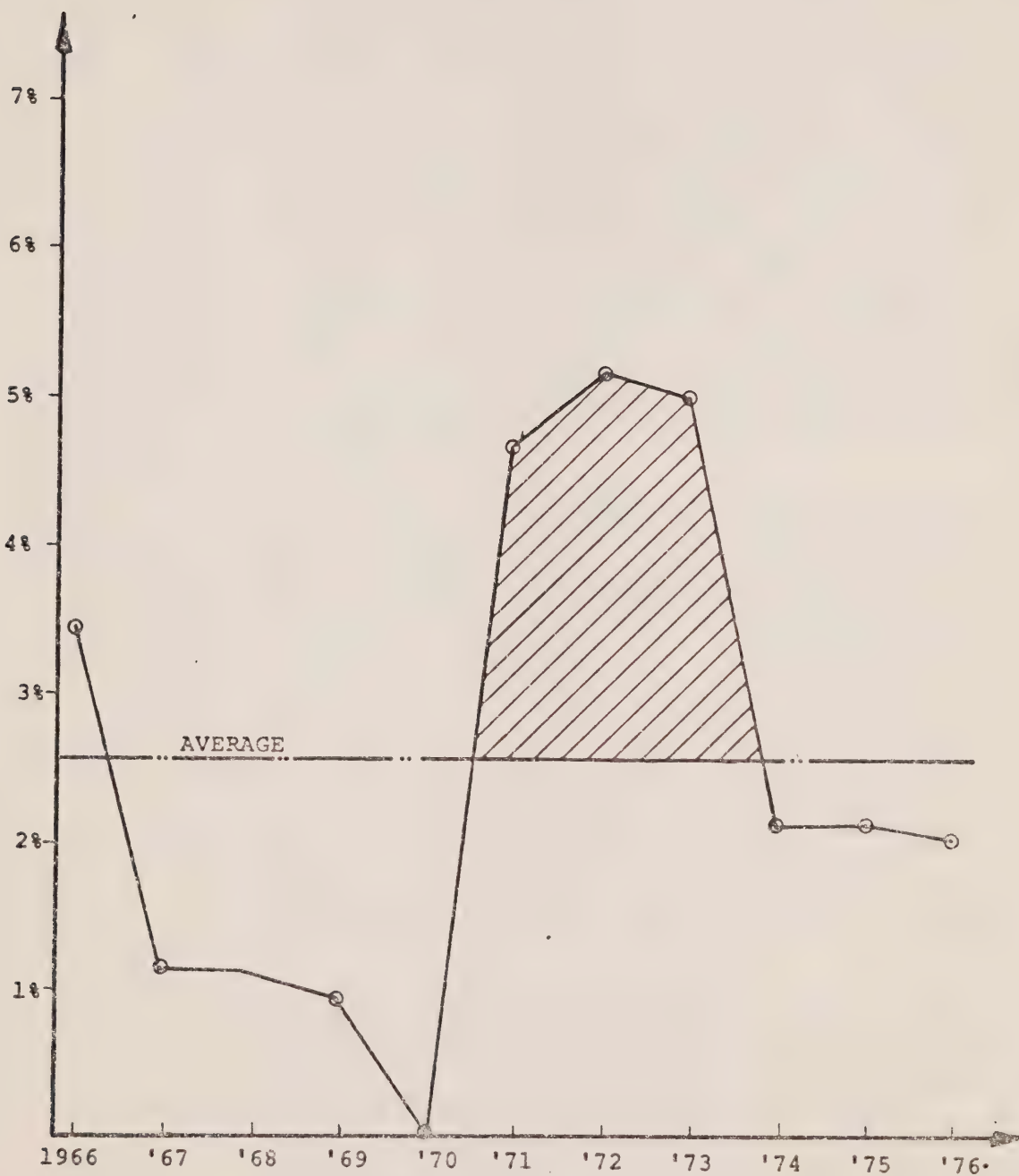
SOURCE: Derived from Table 5.4

the extent to which the changes were above the 11 year average during the early 1970's.

Table 5.5 shows the real rate of return on various assets and both nominal and real conventional mortgage rates. Real returns on federal government bonds and on corporate bonds began to fall with rising inflation in the early 1970's and eventually became negative in 1974 and 1975. With the exception of 1972, common shares also performed poorly. At the same time that assets that might serve as alternatives to land housing were falling in yields, real mortgage rates were also falling. Since these rates essentially affect the cost of buying land and housing, this means that the returns to land and housing were rising. Thus both the fall in returns to financial assets and the increase in the returns to land and housing provided a powerful stimulus to switch asset portfolios from financial assets to land and housing. Figure 5.3 illustrates the changes that occurred in the real mortgage rate. The hatched area shows the degree to which the real mortgage rate was below the 11 year average during the boom years.

In "normal" times mortgage rates and the yield on other financial assets reflect accurately anticipated inflation rates. However, if inflation is not accurately anticipated or legal or institutional rigidities exist such that mortgage rates do not accurately reflect the rate of inflation, large increases in the demand for real estate can be created. This clearly seems to have been the case across the country in the early 1970's. And it was precisely at this point that the institutional changes listed earlier came to bear. Mortgage money was plentiful in the early 1970's and high ratio mortgages removed a further obstacle to effective demand. Thus the increases in demand begun by demographic factors, by real income changes, and most importantly by the effects of general inflation were not constrained by the mortgage market as they might have been as little as five years earlier.

One factor which tended to work in the opposite direction ought to be mentioned: monthly carrying costs are certainly of importance to prospective dwelling purchasers. The high nominal mortgage rates of the 1970's and the relatively high dwelling prices result in relatively high carrying costs. This evidence tends to point towards a decrease in the demand for owner-occupied dwellings. However, although a family might be initially squeezed by high carrying costs, it would reasonably expect its nominal income to increase by at

TABLE 5.5

ANNUAL REAL RATES OF RETURN ON VARIOUS ASSETS

(July annual yields)

Year	Federal Government Bonds	Corporate Bonds	Common Shares (TSE)	Conventional Mortgage Rate Nominal	Real
1957	.6	1.84	-7.21	6.85	3.65
1958	1.92	2.84	-9.89	6.75	4.05
1959	4.39	4.99	12.60	6.85	5.75
1960	4.11	4.33	-6.92	7.15	5.95
1961	4.06	4.49	11.22	7.00	6.1
1962	4.24	5.56	-4.73	7.00	5.8
1963	3.42	3.77	5.46	6.91	5.21
1964	3.48	3.73	19.82	6.88	5.08
1965	2.88	3.34	8.71	7.02	4.62
1966	2.04	2.72	-8.65	7.68	3.98
1967	2.28	3.41	2.05	8.02	4.42
1968	2.49	3.92	-1.59	9.14	5.14
1969	2.92	4.27	5.12	9.90	5.3
1970	4.61	5.88	-11.04	10.38	7.08
1971	4.59	5.78	-1.79	9.46	6.56
1972	2.69	3.58	14.00	9.41	4.61
1973	.23	1.06	5.38	9.71	2.21
1974	-1.39	-.07	-27.68	11.60	0.7
1975	-1.46	.12	-17.43	11.35	0.55
1976	1.87	3.05		11.86	4.36

SOURCE: Task Force Research Studies Volume,
Chapter 7.   Derived from C.M.H.C.,
Canadian Housing Statistics,
various years.

FIGURE 5.3

CONVENTIONAL REAL MORTGAGE RATE
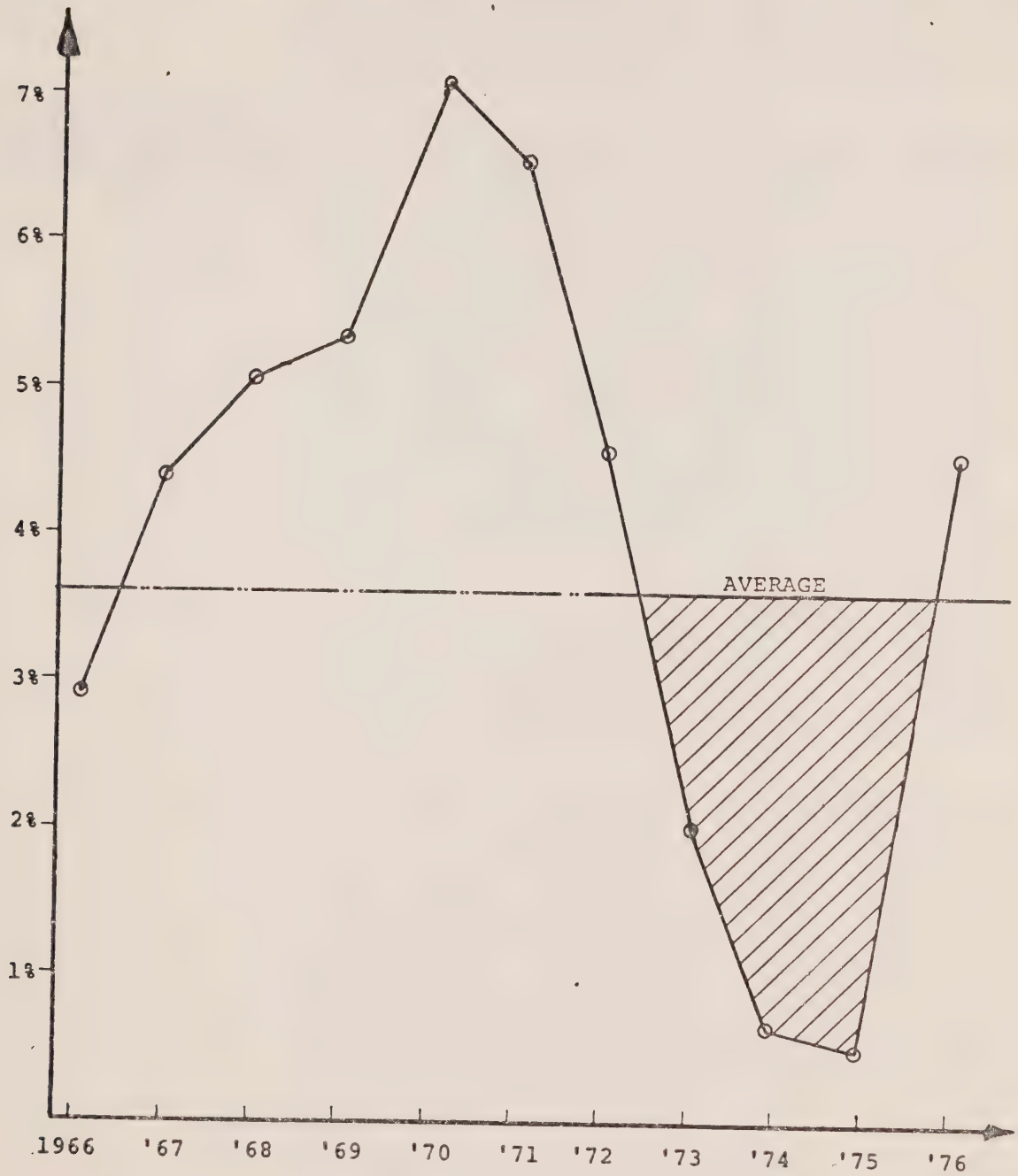
SOURCE: Derived from Table 5.5

least the rate of inflation, so that the "squeeze" would be reduced over time. For example, principal and interest expenditures of $4,000 in 1973 would imply real expenditures (in terms of 1973 dollars) of $3,719, $3,255 and $3,028 from 1974 to 1976 respectively given the rates of inflation prevailing in the Canadian economy over this period.

D. Inflationary Expectations and the "Speculation Bubble" Phenomenon

The final factor contributing to large increase in demand during the early 1970's involves expectations. Although economists do not know a great deal about expectations forming mechanisms, the rapid increase in land and housing prices beginning in 1972-73 appears to have had many of the characteristics of a "speculative bubble". In such a boom an initial increase in price (brought about, for example, by an increase in demand) causes buyers to believe that future prices will increase even further. In such a situation, an increase in price causes increases in demand and, therefore, causes further price increases. The basic mechanism operating here is that buyers extrapolate past price changes into expected future price change. Since expectations of future price increases raise the expected return from owning land and housing, the asset demand for both will increase.

Similarly, some younger households enter the market earlier than they otherwise would fearing higher prices if they wait several years. In this way, some of the demographic effects that have been documented were in fact caused by economic factors and do not represent an independent cause.

It is easy to see how such a boom could have begun in 1972-73. It was likely begun by an initial increase in demand that was triggered by a combination of demographic factors, institutional factors (e.g., capital gains taxation), and the growth of real income. This increase in prices then changed expectations about the future rates of price appreciation. At the same time, real mortgage rates began to fall markedly so that the expected real cost of ownership began to fall. These changes in expectations combined with the easing of downpayment terms for mortgages stimulated demand further and thus the boom was renewed and strengthened.

The speculative boom theory is borne out by the existence of a significant amount of unusual short term activities in Toronto and in many other cities from 1972-75. Realtors tell particularly interesting stories about this period. One of the activities of speculators in the Toronto market,

for example, was to buy serviced lots and houses forward in new subdivisions and then sell before the closing date of the purchase agreement. Transactions costs on such trading are small (particularly for professional realtors), and for a while large profits were earned.

E.   Asset Revaluation

The final point to note is that our demand theory can be confusing if one perceives increases in demand as only resulting from increasing the number of people desiring to buy housing. Such a point of view might lead one to then ask where all these new people were coming from during the boom. This confusion can be avoided by thinking of the boom as a period of "asset revaluation" rather than as a period of "demand increases". Perhaps a brief analogy is in order. Suppose Cripple Creek Mines discovers a rich new vein of gold. Since the value of Cripple Creek's stock is determined by its future stream of profits, the discovery will cause an immediate revaluation in the value of the stock. Persons who were interested in buying the stock will now be willing to pay more and persons who were considering selling the stock will now demand a higher price to be willing to sell. Indeed, no transactions at all need occur except insofar as one transaction is needed to document the new value of the stock. The revaluation in no sense requires a stampede of new purchasers into the market. Similarly, the demand for housing is determined by the future stream of benefits that housing will yield, and by expectations of future prices of the house as an asset. We are arguing that the last two variables in particular received sharp upward revaluations during the boom years. As in the case of Cripple Creek, the result was a revaluation of housing as an asset for reasons that do not require the existence of large numbers of new first time home buyers.

The basic processes involved in the revaluation of residential property during the boom years are summarized in Figure 5.4. All of the factors we have discussed acted in a cumulative fashion to generate significant increases in demand during the early 1970's. This led to initial price increases which when combined with the rate of economy-wide inflation led to changes in expecta- tions about future land and housing prices. Since present prices are partly determined by these expectations, present prices were then revalued sharply upwards.

The evidence that the Task Force has acquired in the course of its investigation overwhelmingly points to demand factors and asset revaluation as

FIGURE 5.4
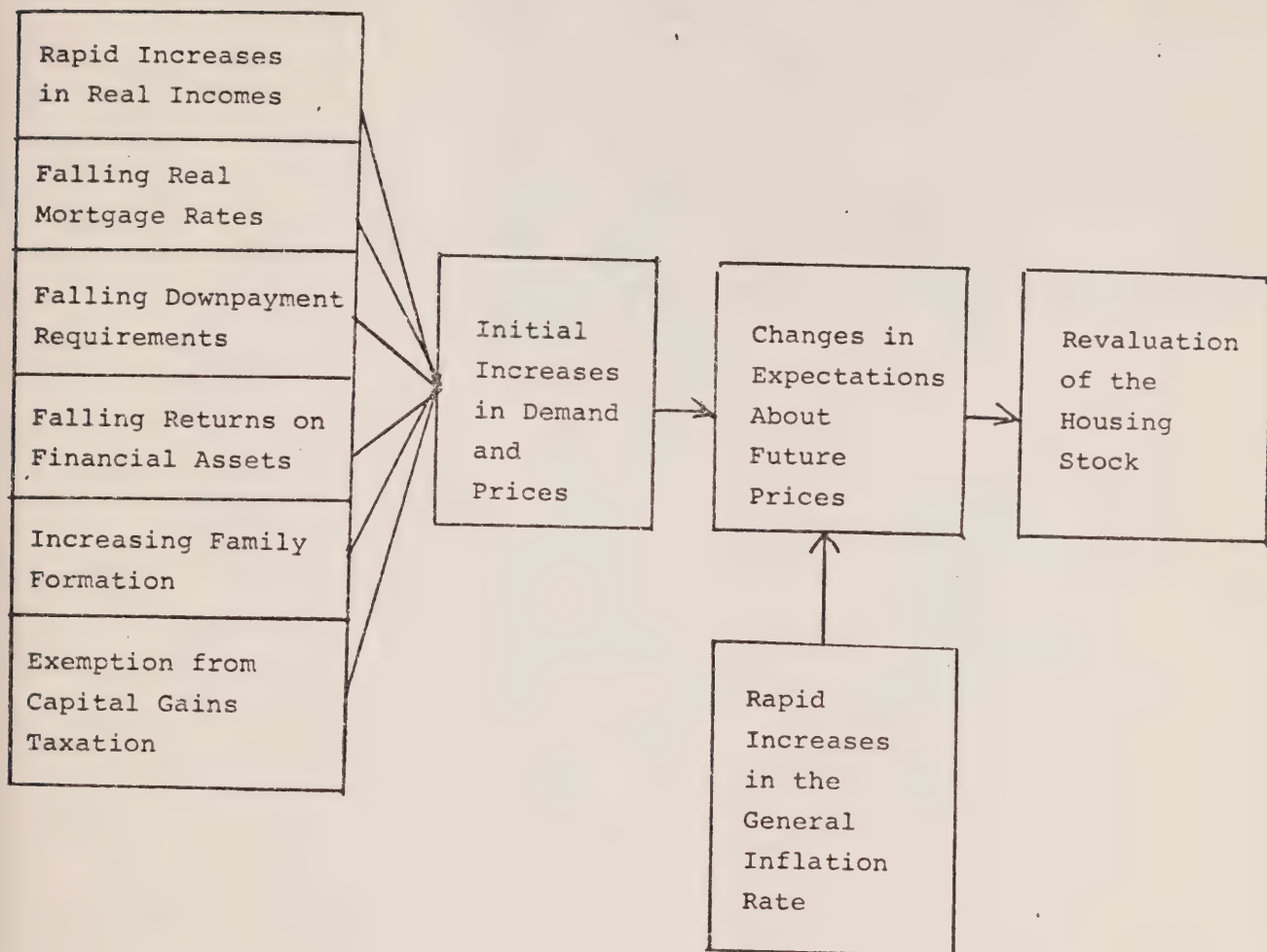
the primary force behind the 1973-75 land and
housing price boom. Had the general nature of the
boom been carefully documented across the country,
this would probably have been clearer far sooner.
This is not to suggest that supply retarding
influences such as monopolistic developers or
restrictive approval processes do not exist. If
they do exist, however, their primary importance
lies in higher current and future price levels
and not in the rapid changes experienced during the
boom. We will, therefore, now turn to a detailed
examination of factors affecting the supply of new
lots and the effects that these factors have had
on current price levels and are likely to have on
future prices.

A.   The Importance of Uncertainty

Perhaps the most important assumption in the simple model of land price determination presented in Chapter 3 is that land investors have good foresight or accurate expectations about the future. The purpose of the present chapter is to dispense with this obviously unrealistic assumption and explicitly consider the effects of uncertainty on prices and land development. We have noted, for example, that land may be held for either consumption or asset motives (or both). Since land is a durable good that yields a stream of benefits over a long period of time, present demand for land for consumption purposes depends upon consumers' judgments about the future. The asset demand and supply for land depends even more clearly on investors' judgments about the future. Thus both components of demand depend on expectations about future events which are, of course, uncertain.

Uncertainty about the future arises from a number of sources. First, there is uncertainty about future rates of population growth and other demographic factors. Second, there is uncertainty about future levels of income and general economic conditions. Since land and housing are durable, the consumption motive for buying depends on expected future income as well as on present income. An individual making $20,000 per year is far more likely to buy a $60,000 house if he expects his income to rise steadily than if he expects to be laid off in the near future. Similarly, the asset motive for buying and selling land depends upon expectations of future incomes since future income levels directly determine the level of future demand and future prices. Third, substantial uncertainty has been introduced into the land market in recent years by the growing level of government intervention. Restrictive subdivision approval processes and frequent changes in official plans are two examples of actions that generate uncertainty.

Expectations can and do undergo rapid changes which, in turn, produce correspondingly large price changes. Although the 1972-75 boom as discussed in the previous chapter forms only one such period in our recent history, two implications of this boom are important for our present purposes. First, the expectations of sellers of land formed during the 1950's and 1960's were significantly off target as they sold low; secondly, however, the evidence now shows that in some areas the boom became a speculative bubble and land prices significantly overshot their appropriate values as buyers bought high, based on expectations in the early 1970's which were also incorrect.

Interesting evidence about the quantitative importance of uncertainty over the last 25 years was supplied to the Task Force for the City of Montreal. Figure 6.1 (drawn from Task Force Research Studies Volume, Chapter 4) shows the movement of raw land prices over time in three areas of the Montreal region. These areas are, respectively, the subdivision of Rive Boisée in the City of Pierrefonds, the subdivision of Sabrevois in the City of Boucherville, and the subdivision of Portobello in the City of Brossard. We selected Montreal for this study of raw land prices in order to overcome the serious problem which exists almost everywhere else in Canada, that raw land is typically traded in large blocks and is therefore traded too infrequently to permit enough observations to be made.

All three areas show substantial fluctuations in the price of raw land. We do know from Table 2.1 that Montreal lot prices fell in a number of years so that we should not regard the large negative fluctuations shown in Figure 6.1 as typical of all urban areas. But a comparison of these graphs with Table A1 in the Appendix will also show that the raw land prices fluctuated substantially more than serviced lot prices which is the point we wish to establish. While raw land prices in Figure 6.1 show fluctuations ranging from 200% (Portobello) to 900% (Rive Boisée) during the 1966-1975 period, fluctuations in Montreal lot prices as shown in Table A1 were less than 150% in the same period. More complete documentation is contained in the Task Force Research Studies Volume, Chapter 4.

In short, all of the evidence compiled by the Task Force indicates that uncertainty is a significant empirical phenomenon in the land market. The evidence indicates that raw land prices fluctuate much more than housing prices and that investment in raw land is a far more risky venture than is commonly thought to be the case.

B. Speculation An appreciation of uncertainty and the riskiness of land trading is vital for an understanding of several controversial issues. The first of these is land speculation which has been one of the suggested causes for recent increases in, and levels of, lot prices. Chapter 4 of the Task Force Research Studies Volume notes that despite its common usage, it is difficult to find an explicit definition of "speculation" anywhere in the written record of public discussion. That chapter goes on to note that in economics literature, the term "investor" has been used for an agent who provides capital which he assumes is to be used in the

FIGURE 6.1

LAND PRICE MOVEMENTS 1950-76
VARIOUS MONTREAL SUBURBS

Price
in $
per sq. ft.

———— Rive Boisée Subdivision, Pierrefonds, Quebec.
———— Sabrevois Subdivision, Boucherville, Quebec
——·—— Portobello, Brossard, Quebec.
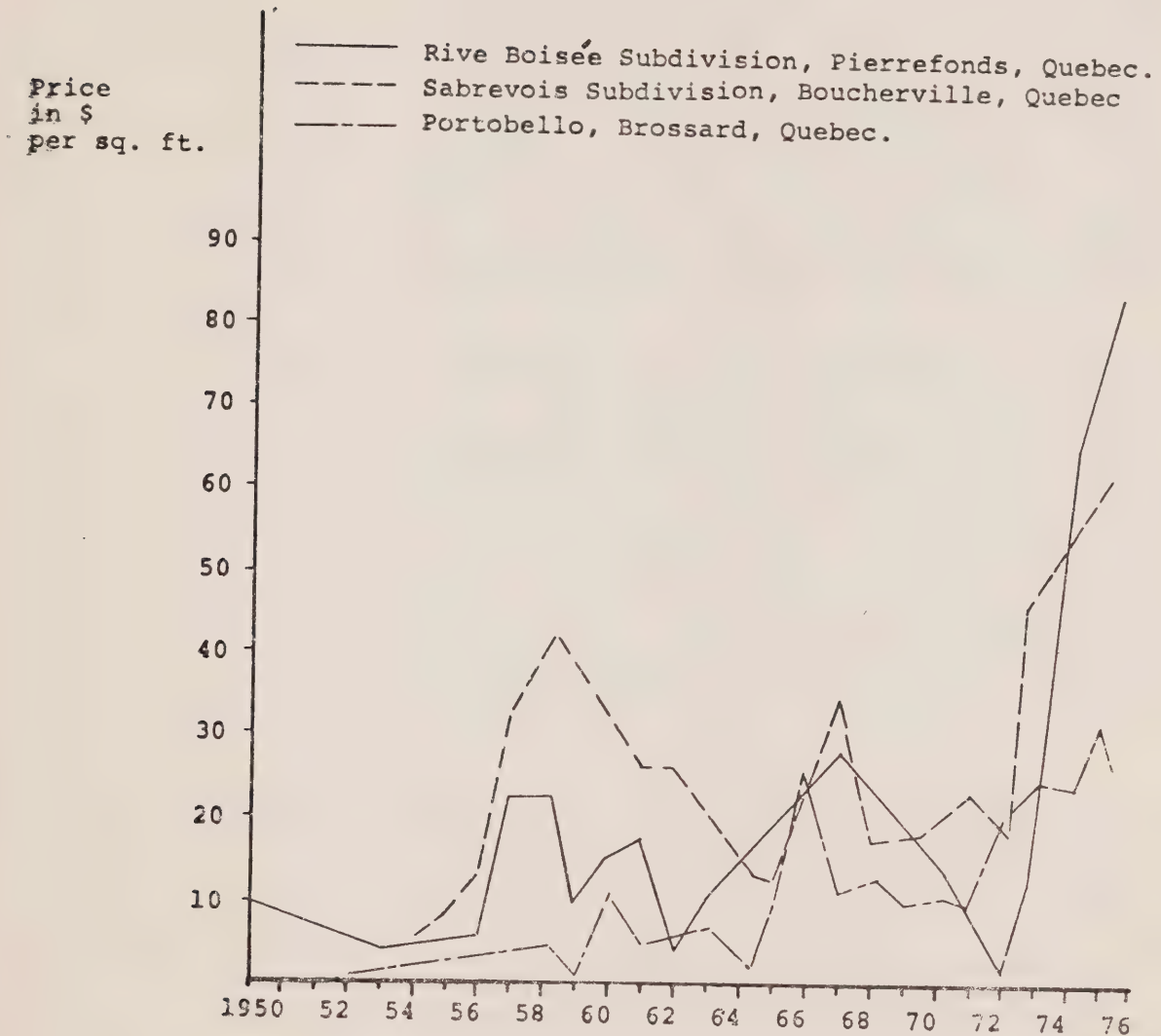
SOURCE: Task Force Research Studies Volume, Chapter 4.

production of goods and services. The term "speculator" on the other hand has been tradition- ally used to denote an agent who buys and sells assets for the sole purpose of making a capital gain. In the spirit of this distinction, we have throughout the Task Force Study defined a land speculator as an agent who buys and sells land: (a) for capital gains purposes; and (b) without affecting improvements to that land. We have defined a developer as an agent who purchases land in order to transform it into a more valuable commodity by subdividing and servicing it. It is, of course, possible for an agent to be a speculator in some activities and not in others. Some readers will no doubt be displeased with our definitions but will perhaps concede the absolute necessity for some consistent and meaningful definition.

Suppose for a moment that all agents in the land development process had extremely accurate expecta- tions about the future, such that there was very little risk or uncertainty in the market. The simple model of price determination in Chapter 3 has suggested that in such a situation prices would tend to move in such a way that a farmer who owns land ten years away from development will face present and future prices that leave him more or less indifferent between holding his land for ten more years or selling today for a lower price and investing his funds. A developer making plans for ten years hence would similarly face prices that leave him indifferent between purchasing land today and purchasing it ten years hence.

In such a world there would be little role for speculators or middlemen between farmers and developers. They would have no apparent function to perform. But given the substantial uncertainty mentioned above, there will exist a role for agents who are less risk averse than farmers and develop- ers. Professional risk takers (i.e., speculators) will enter the market and purchase land from farmers at prices substantially in excess of agricultural value but substantially below average residential value. These agents will then make gains or losses depending upon whether or not conditions are such that the land can be developed within a reasonable period of time.

Provided that there are enough speculators in a market to ensure that speculation is a competitive activity, it is not clear why land speculation carries such a negative connotation. Indeed, economists have long argued that if speculators make money, then they perform the function of stabilizing the market. In other words, if specu-

lators successfully buy low and sell high (i.e., if they make money), then they reduce the price fluctuations that would otherwise occur in the market. Further, analysts from both ends of the political spectrum tend to agree that speculation (if competitive) does not affect long-run price levels.

In Chapter 3 of the Task Force Research Studies Volume, the author makes one comment that may shed some light on the negative connotation attached to land speculation. This has to do with the general lack of appreciation of the phenomenon of compound interest. If an asset such as raw land is risky, investors will insist on high average rates of return as a compensation for risk bearing. Suppose, for example, that land speculators required an average rate of return of 14% in order to be willing to hold land. The author points out that if the speculator expects the land to be worth $100,000 in only seven years, he will be willing to pay only $41,000 for it now. Thus with expectations just met and with the 14% return just being earned, the land price will rise to two-and-one-half times its original price in only seven years. The figure of 14%, which does not seem excessive viewed by itself, begins to look excessive when compounded over a number of years. The returns look even more excessive, of course, if one reports only successful speculative ventures and forgets the losing ventures as some analysts have done. That is like evaluating Eaton's profits on the basis of November and December sales only, and ignoring the February doldrums.

C. A Case Study in Land Assembly

To better understand the actual working of land speculation and the assembly of small land parcels into larger areas, the Task Force examined the histories of a number of successful land assemblies across the country. It is hoped that these case studies will give us some idea of how the process has operated in the past, but of course they may not describe the process used today and in the future. The second point that must be constantly kept in mind is that the Task Force traced only successful projects. Capital gains made in these successful land assemblies cannot be considered representative of the average gains made on raw land speculation. The data presented below also comes from the "boom years": a very special time in history when unforeseen increases in incomes, population, and inflation resulted in huge gains (for existing homeowners as well as for landowners).

The assemblies examined across the country by the Task Force revealed a tremendous amount of

diversity. A good deal of this diversity is
captured in Chapter 4 of the Task Force Research
Studies Volume. In this Report, we only present
one case study and thus its limitations should be
kept in mind.

Figure 6.2 shows the assembly process for land
currently owned by Bramalea Consolidated in the
City of Brampton which lies on the northwest fringe
of Metropolitan Toronto. This assembly was
composed of nine parcels (listed 1-9 in the left-
hand column), seven of which were eventually
purchased by Bramalea. A movement from left to
right in the figure represents a movement through
time from past to present. Total acreage in these
seven parcels is just short of 500 acres.

Transactions on these parcels occurring in the
1940's were all between family members and probably
cannot be counted on to provide reliable price
information. In 1951, however, Parcel 1 was sold
by Moran to Ruston for $5,000 or $100 per acre. In
1953, Parcel 3 was sold by Moran to Clarkson for
$26,000 or $268 per acre. Neither price is in
excess of agricultural value and thus give us two
indications that future development potential was
not perceived at this date.

Later, two more parcels were purchased by middlemen.
M. Ackroyd sold Parcel 7 to the Armstrong Brothers
Company in 1964 for $138,614 or $2,718 per acre.
Clarkson sold Parcel 3 to Arosa Properties in 1972
for $631,936 or $6,515 per acre. To the best of
our knowledge, all four middlemen companies, Bayton,
Arosa, Nortonville and Armstrong were independent
of Bramalea Consolidated.

A five year gap occurred between Bramalea's pur-
chase of Parcel 1 and 2 and its next purchase of
Parcel 4 from Nortonville in 1963 for $75,000 or
$2,500 per acre. This was the only example of a
large loss recorded in this assembly. An examina-
tion of other prices shows that the $5,000 per
acre paid by Nortonville for this land was clearly
above market and that the $2,500 received in the
sale was a reasonable price for the period. Adding
to the gross loss of $75,000 the opportunity costs
of holding the land for eight years produces an
economic loss of well over $100,000 or nearly 100%
of invested capital.

Armstrong Brothers sold Parcel 7 to Bramalea in
1964 (one month after purchase) for $141,243 or
$2,769 per acre. This rather small gain of $3,000
on the 51 acre parcel probably covered expenses at
best. Parcel 5 was also acquired from J. Ackroyd

FIGURE 6.2

BRAMALEA ASSEMBLY, TORONTO REGION, ONTARIO

1. Moran – Ruston   50 AC
   July 15, 1951 $5000
   $100/AC

2. Ruston – Ruston   100 AC
   January 10, 1948   NIL

Ruston – Bayton
December 16, 1957
   150 AC
   $166,216
   $1108/AC

Bayton – Bramalea   150 AC
March 28, 1958
Price NA

3. Moran – Clarkson   97 AC
   April 1, 1953 $26,000
   $268/AC

Clarkson – Arosa   97 AC
August 10, 1972 $631,936
   $6515/AC

Arosa – Bramalea   97 AC
May 16, 1973 $1,323,469
   $13,644/AC

4. Ackroyd–J.Ackroyd   127 AC
   December 14, 1942 $4500
   $35/AC

J. Ackroyd – Nortonville
October 1, 1955   30 AC
   $150,000 $5000/AC

Nortonville – Bramalea
November 15, 1963   30 AC
   $75,000 $2500/AC

J. Ackroyd – Bramalea
November 15, 1963   97 AC
   $243,145 $2507/AC

5.

6. Ackroyd–M.Ackroyd   100 AC
   May 21, 1943 $3000
   $30/AC

M. Ackroyd – Armstrong
March 16, 1964   51 AC
   $138,614 $2718/AC

Armstrong – Bramalea   51AC
April 27, 1964 $141,243
   $2769/AC

7.

8. Parr – M. Parr   198 AC
   April 17, 1943 $19,500
   $98/AC

M. Parr – Bramalea   72 AC
March 31, 1970 $1,149,760
   $15,969/AC

9.

SOURCE: Markusen, J., and Scheffman, D., Speculation and Monopoly in Urban
Development: Analytical Foundations with Evidence for Toronto.
University of Toronto Press, 1977.

in late 1963 for $243,145 or $2,507 per acre.

The late 1960's and early 1970's, on the other hand, produced rapid price increases and spectacular capital gains. Mary Parr sold Parcel 8 to Bramalea in 1970 for $1,149,760 or $15,969 per acre. Arosa Properties sold Parcel 3 less than a year after purchase for $1,323,469 for about a 100% rate of return over nine months.

D. General Finding In addition to examining these studies done by Markusen and Scheffman in Toronto, the Task Force also examined land assemblies in Montreal, Edmonton, Fredericton, Charlottetown and Vancouver. Please remember our earlier caveat about small samples and the boom years period. Nevertheless, our research in total suggests the following broad generalities:

(1) The length of time between land acquisition by the final developer and subdivision varied substantially both across the country and within urban areas. In very few cases did we find the final developer purchasing land as much as ten years before development. Several long holding periods were observed in Toronto but short holding periods of two years were also observed in that region. For Fredericton, Charlottetown, Edmonton, and Vancouver, holding periods of two or three years seemed to be the rule rather than the exception.

(2) The length of time between development and the date that land began to appreciate above agricultural value varied somewhat less across the country. At one extreme was Toronto, where land was observed to appreciate above agricultural value almost twenty years prior to development. In other areas, perception of future development potential seemed to be slower in coming and prices began to rise ten years or less before development. Within each urban area, however, the pattern of price appreciation was remarkably uniform. Thus there is some variation in the inter-urban but not in the intra-urban sense. .

(3) The importance of middlemen also seemed to vary more across metropolitan areas than within areas. Middlemen played major roles in Montreal and Toronto, significant roles in Edmonton, but were of less significance in Fredericton, Charlottetown, and Vancouver.

(4) In Toronto, middlemen were often responsible for the assembly of small parcels into larger ones. To the extent that assembly is a productive social activity, such middlemen are not purely speculators as defined earlier.

(5)   The pattern of prices over time on land that was successfully subdivided in the 1970's showed very high average rates of capital gains in the late 1960's and early 1970's and very few losses. The period of rapid price increases probably began earlier in Toronto than elsewhere but all areas experienced the "boom".

(6)   Our Montreal research which includes all raw land transaction prices in certain areas shows a high degree of variability over time. In particular, raw land prices showed far more variation than serviced lot prices.

(7)   The variance in prices paid for similar parcels of land at similar points of time was frequently large enough to suggest substantial uncertainty and poor information in the markets. This is not surprising since to the best of our knowledge, current or even past raw land price data are not collected and compiled in a systematic way anywhere in the country. Unlike agents in the stock market, therefore, agents dealing in raw land have a high degree of uncertainty over market conditions at any point in time.

A. Conditions Necessary for Market Power

Earlier it was noted that the absence of uncertainty was an important assumption made in the stylized discussion of land price determination presented in Chapter 3. An equally important assumption and certainly one that has received considerably more attention is the supposition that the land market is competitive. Few theories, it seems, have generated the controversy that is associated with the "monopoly developer theory". This theory asserts that in various urban markets the ownership of undeveloped land and/or land approved for development is concentrated in the hands of a small number of developers who collude to raise prices above their competitive levels. The method by which they are thought to raise prices is presumably restriction of land supply.

Agents who have the ability to raise prices above their competitive levels are said to have market power. Market power is thought by economists to be undesirable for two reasons. The first is inefficiency: the distortion of prices from the competitive levels usually implies that society's scarce resources are being used inefficiently. In this respect, the exercise of market power results in an overall loss for the society. The second is inequity: in addition to causing an overall loss, exercised market power usually results in a redistribution of income in favour of the agents with market power.

Economists generally agree that two conditions are necessary for economic agents (sellers of land in our case) to have market power. First, the number of sellers (or buyers as the case may be) must be small in number. The reason is that the restriction in supply needed to raise prices requires the creation and the enforcement of a collusive agreement on the part of the sellers. Such an agreement may be either implicit or explicit. A necessary characteristic of an agreement in either case is that each member of the cartel agree to accept some limit on his sales. Thus a collusive agreement always involves a struggle over the market shares allocated to the members of the agreement. It is widely believed that these agreements quickly become difficult to form and impossible to enforce as the number of sellers becomes large.

The second condition necessary for sellers in an industry to have market power is that there exist barriers-to-entry in that industry. A barrier-to-entry in an industry is a cost which must be incurred by a new firm but not by an old firm. While most observers are familiar with the concentration condition, a surprising number seem to be

quite unfamiliar with the barriers-to-entry condition. Yet it is easy to see why this second condition is so important. If there are no barriers-to-entry, even a highly concentrated industry cannot exercise market power, since any attempt to raise prices above competitive levels will cause new firms to enter the industry.

When barriers-to-entry exist in an industry, economists use rough rules to determine whether or not the degree of seller concentration in that industry is high enough to imply the existence of significant market power. While industrial organization economists do not like to be pinned down to a general rule, a typical criterion is that the top four sellers must control about 60% (a few say 50% and some say 70%) of a market with moderate barriers-to-entry for significant market power to exist. While there is no reason why these ratios provide a hard and fast measure of significant market power, they do provide an initial benchmark where little else exists against which the industry across Canada can be compared.

An attempt to determine whether or not these two conditions are met in any market must first confront the issue of defining the market. Basically, a market should be defined to include all products whose prices are jointly determined. Products which are very good substitutes for one another should be grouped together into the same market. This brings us to exactly the same question addressed in Chapter 4 on short-run price fluctuations: the stock-flow problem. In that section, we noted that the evidence suggested that new and old houses are quite good substitutes for one another. It does seem to be the case that sufficient numbers of households respond to price movements to justify the assumption that each metropolitan area forms a single market. If this is true for housing, it must be true for the residential land market since the demand for the latter is derived from the demand for the former.

It should be pointed out to those who are not convinced by the evidence in Chapter 4 that an assumption of complete substitutability is not really needed here. All that is really necessary is that we agree that undeveloped land on the urban fringe forms a single market in each urban area. Hopefully this is not offensive to anyone since neighbourhood characteristics are not well developed in these fringe areas. Perhaps everyone will also agree that this "undeveloped land" market has a great many "good" but not "perfect" substitute products: all of the developed residential

neighbourhoods.

Restricting ourselves, therefore, to a discussion of undeveloped land, the problem of determining the barriers-to-entry into this market is refreshingly simple. A new firm can only enter the land industry by buying out an existing landowner and thereby inducing that landowner to leave the industry. Any collusive agreement among existing landowners forms an absolute barrier-to-entry.

In the land market, therefore, the conditions necessary for the existence of significant market power reduce to the single condition that the sellers in the market are few in number.

One problem still remains: should concentration be measured in the ownership of land or in the actual development of land when dealing with the urban fringe land market? It is the Task Force's opinion that it is important to distinguish between two activities: the land holding "industry" and the land development "industry". While many firms engage in both industries, there are a significant number of firms that deal in land but do little or no actual development and a number of firms that buy only zoned and serviced land immediately prior to development. As noted in the previous paragraph, the barriers-to-entry in the land holding industry are extremely high. A monopoly landowner could easily control the release of land to land developers in order to influence price.

Empirical evidence does suggest that actual land development is more concentrated than land ownership. In Toronto, for example, a study by Andrew Muller for the Ontario Economic Council shows that, after all linkages among companies are taken into account, the four largest subdividers accounted for 33.4% of the building lots approved from 1971-73 and that the top ten accounted for 53.5%. Corresponding statistics in a study by Markusen and Scheffman (also for the Ontario Economic Council) for land ownership show the top four landholders with 22.7% and the top ten with 37.1%.

While the evidence is not definitive, the Task Force tends to support the point of view that barriers-to-entry in actual land development are quite low. Muller was not so sure. Muller conconluded that "barriers-of-entry into land development may by significant" because of the joint effect of three factors.(1) The first of these is

(1) Muller, Robert Andrew: The Market for New Housing in the Metropolitan Toronto Area. Ontario Economic Council, 1978.

the possible existence of economies of scale for
large developments. Evidence gathered by the Task
Force, however, indicates that large scale projects
were no more profitable than small projects indica-
ting that economies of scale are either minimal or
non-existent.(1) Muller may have been referring
more to company size than to individual project
size but we similarly know of no evidence to
suggest that the larger companies are inherently
more profitable than small companies. A second
factor which Muller identifies as a possible
barrier-to-entry to land development is concentra-
tion in the ownership of land. The Task Force
concentrated its efforts on examining land owner-
ship with the results reported later in this
chapter. Finally, Muller suggests that barriers-
to-entry may exist because of the planners'
preference to approve developments bordering on
built-up areas. Land bordering on built-up areas
was, of course, included in the Task Force's
sample as was all land with development potential
within the next five years (discussed below). It
could be argued that the breadth of the sample of
five year land examined by the Task Force is too
generous if one developer, for example, owned all
the land which could be developed in one year.
However, it is unlikely that such a developer
would greatly restrict development for the one
year period since his ability to influence prices
is sharply limited in the short run, as discussed
at length in Chapter 4 on short-run price
fluctuations.

Further influence of the lack of barriers-to-entry
into land development has been given in recent
years by the entry of eastern firms into the
Western Canadian market (e.g., Bramalea, Mark-
borough, Costain, Campeau) and entry by western
firms into the Eastern Canadian market (e.g., Nu-
West, Engineered Homes, Carma). The market in
London, Ontario, for example, thought to be
monopolized by Sifton and Matthews, has recently
been entered by Wimpey and Monarch. The market in
Calgary, thought to be monopolized by Carma, Nu-
West and Genstar, has recently been entered by
Markborough, Costain and Campeau. Similarly,
Wimpey and Costain have entered the Edmonton market
in competition with Nu-West, Genstar, Daon and
Qualico. All of these actual instances of entry
obviously provide limited but tangible evidence
that barriers-to-entry in land development cannot
be very significant. Thus the Task Force is of the
opinion that anyone wishing to make a case for

_____

(1) This result is explained in greater detail in
Chapter 9.

market power on the basis of concentration in actual development activity must be required to prove the existence of barriers-to-entry. Existing evidence suggests that an attempt to do so will not be successful. This is why the Task Force concentrated its efforts in examining the market for undeveloped land.

The basics of our argument are shown in the accompanying decision tree (Figure 7.1) which divides the land development industry into two activities: land ownership (land holdings) and land development. Two tests must be performed on each activity to assess whether or not market power exists. Our argument states that barriers-to-entry obviously exist in the land ownership activity while existing evidence suggests that significant barriers-to-entry do not exist in the land development activity. If this is correct, the lower decision tree does not allow us to conclude that market power exists in the land development activity even if the production of lots is concentrated. The opposite conclusion is reached in the upper decision tree: market power must necessarily exist if land ownership is concentrated.

Before proceeding to the data, a few words should be said about the price effects of exercised market power. In most commodity markets, a monopolist can make significant gains in the short run by restricting supply and raising price. But in the land market we are once again confronted with the large stock of land already in residential housing. Chapter 4 above presented a simple example illustrating the price effects of a restriction in the supply of new housing. This example is perfectly adaptable to a description of the price effects of of monopoly supply restriction. The implication of the analysis in that chapter is that the ability of a monopoly land-owner to raise prices in the short run is sharply limited even if that landowner were to reduce lot supply to only 50% of competitive levels. Thus, as in the case of other types of supply restrictions, the Task Force does not believe that monopoly ownership of undeveloped land could have caused the degree of price appreciation that was witnessed across the country from 1972-1975.

Note, however, that this in no way implies that monopoly ownership of undeveloped land should not be a cause for concern. Price increases of one or two percent per year compounded over long periods of time can become very significant indeed. The point is simply that the effects of market power are to distort long-run price levels in a gradual way, rather than to cause periods of sharp price increases.

FIGURE 7.1

DECISION TREE FOR ASSESSING INDUSTRY STRUCTURE
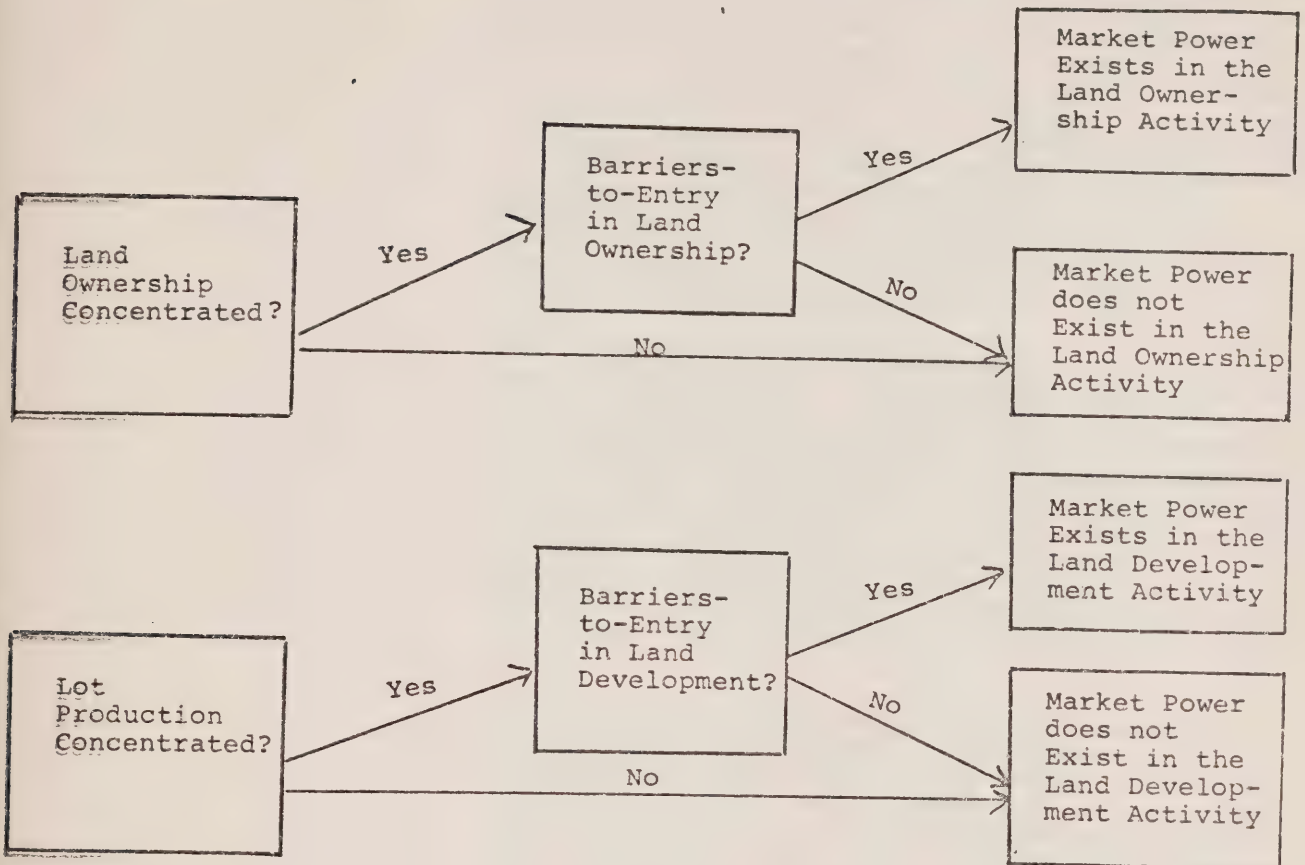
B. Sample Methodology   As noted previously, any attempt to analyze concen-
tration in a specific market must immediately
confront the issue of defining the market. The
first decision that must be made in this regard is
how far one is willing to travel from the urban
core in defining the market for undeveloped land.
It is argued in Chapter 8 of the Task Force Research
Studies Volume that with land spatially differenti-
ated by transport costs, significant concentration
of ownership within subsets of land at fixed
commuting distances from the urban core is
sufficient for the existence of market power. Thus
the first step in the formation of a sample would
seem to be the fixing of an outer boundary.

No firm scientific criteria can be found to help
out in this regard. Our decision, which can of
course be disputed, is as follows. For urban areas
under 500,000 in population the outer boundary of
the area was set at about five minutes commuting
time (approximately two to three miles) from the
present built-up area. For urban areas of 500,000
to 1,500,000 population, this limit was set at ten
minutes commuting time from the built-up fringe.
For areas in excess of 1,500,000 population, the
limit was set at 15 minutes or about eight to ten
miles.

The second criterion we adopted in selecting a
sample was that all land in the sample be
potentially serviceable with all required utili-
ties within five years. This does not mean that
all of the land in the sample must actually receive
trunk servicing facilities in five years but only
that all land in the sample has the potential for
receiving such servicing under existing servicing
schemes. The basic principle behind this decision
has to do, once again, with the stock-flow issue.
If one developer controlled 100% of the three year
supply of land but only five percent of the five
year supply, there is little reason to believe that
he would behave significantly differently from a
competitive industry. He might, for example, be
able to achieve a price increase of 25% over the
three year period in exchange for a 50% cut in
production, but this would generally not be a
profitable strategy. We have, therefore, settled
(somewhat arbitrarily) on control of a five year
supply as a minimum requirement for significant
market power.

The third criterion for selecting a sample in each
metropolitan area was that land which we were
certain could not be developed should not of course
be included. This includes swamps, parkland,
industrial lands, etc. Land which is not presently

zoned for residential use was not eliminated on that basis alone. Zoning designations and official plans are amendable as we all know. Indeed, a major activity in the life of a developer is the pursuit of changes to these municipal planning instruments.

These three criteria formed the basis for examining ownership concentration in a number of metropolitan areas across the country. In each area, of course, the general criteria had to be modified to take into account specific local features. Thus, in all areas, a number of judgments inevitably had to be made as to whether or not particular areas should be included in the sample. These were often judgments about which reasonable men could differ. Similarly, in several areas, the Task Force staff either did not use, or substantially altered, the research results of existing ownership studies. In Halifax, for example, the staff added significant acreage to the local CMHC landmapping study after determining that this study did not conform well to the Task Force criteria. In any case, an important point is simply that there is no such thing as a "definitive" sample since a judgmental element always remains.

Finally, it should be emphasized that our data reflect industry structure at only one point in time, 1977. They cannot tell us, for example, if the development industry is becoming more concentrated over time. This is an important question since there do appear to be several forces at work that may lead to higher concentration in the near future. These forces are discussed at length in subsequent chapters.

C. Findings   Once the data were collected the obvious question was one of possible linkages among companies. Popular opinion is that these linkages are quite common. The problems involved in establishing linkages are substantial, involving both arriving at a definition of a linkage and then obtaining the data on whether or not a linkage exists. Many development companies are privately owned and others are foreign owned. Given this problem, we decided to try to establish linkages by overlaps in principal officers and directors as well as by tracing links in equity ownership. Companies that Task Force personnel were able to link together in this manner are listed in Figure 7.2 as "composite components".

Indirect linkages, of course, may also exist. Companies A and B may, for example, share one

FIGURE 7.2

COMPOSITE COMPONENTS OF SIGNIFICANT NATIONAL
OR LOCAL IMPORTANCE

Composite Components	Area of Operation	Linkage
Genstar B.A.C.M. Engineered Homes Abbey Glen United Management Kelwood	National	Abbey Glen and Kelwood are part of Genstar Corp. B.A.C.M. and Engineered Homes are 100% owned subsidiaries of Genstar and United Management is 50% owned by Genstar.
Nu-West Carma Cairns	National	Cairns is owned by Nu-West and Carma is 48% owned by Nu-West.
Markborough Wimpey	National	Principal officers and boards of directors share two members.
Bramalea Developmental	National	Principal officers and boards of directors share two members.
Cadillac-Fairview Don Mills	Eastern Canada	Amalgamated.
Consolidated Building Archway	Eastern Canada	Principal officers and boards of directors share one member.
S. B. McLaughlin Focal	Eastern Canada	S. B. McLaughlin owns Focal outright.
Block Bros. Realty 105 Mile Ranch	Vancouver	Principal officers and boards of directors share one member.
S. Spetifore and Sons Imperial Developments	Vancouver	Principal officers and boards of directors share one member.
North Port Properties Community Builders	Vancouver	Principal officers and boards of directors share two members.
Delsom Estates Picadilly	Vancouver	Principal officers and boards of directors share one member.
Daon Development Dawson Developments	Western Canada	Dawson changed its name to Daon.
Harmon/Elgon Remco Properties	Vancouver	Principal officers and boards of directors share two members.

FIGURE 7.2 (continued)

Composite Components	Area of Operation	Linkage
Sterling Jager	Calgary	Amalgamated
Plainsview Staseson	Regina	Staseson is a shareholder in Plainsview.
Saskatoon Land Dvpmt. Boychuck Real Esate	Saskatoon	Boychuck is a shareholder in the Saskatoon Land Development Corporation.
Metropolitan Cirrus Land Winfield Prop.	Winnipeg Calgary	Metropolitan is a major shareholder in Cirrus. Metropolitan and Winfield share one principal officer and director.
North Winnipeg Prop. Ladco	Winnipeg	Principal officers and boards of directors share two members.
Skyline Enterprises Brendie Engerprises Leila Farms	Winnipeg	Principal officers and boards of directors share one or two members.
Cedarland Bond St. Gdynia N.H.D. Glen Cove Village Securities	Toronto	Principal officers and boards of directors share a minimum of one member and a maximum of two members.
Pinetree Runymede Woodfield Rexdale Tannenbaum	Toronto	Principal officers and boards of directors share a minimum of one members and a maximum of two members.
Acumen Arrandene Rayland	Toronto	Principal officers and boards of directors share between one and three members.
Sander Atura Milestar	Toronto	Principal officers and boards of directors share one member.
Coniferous Cupra Settle	Toronto	Principal officers and boards of directors share two members.
Eadie and Willcock Joklin Holdings	London	Common Directors

FIGURE 7.2 (continued)

Composite Components	Area of Operation	Linkage
Five Knights Rice, et al.	London	Two of Rice, et al. are directors of Five Knights
Shenkman Queenswood Larega	Ottawa	Queenswood shares two directors with Larega, one with Shenkman.
Tartan Granic	Ottawa	Amalgamated
Maple Ridge Bedford Village Properties	Halifax	Board of directors share three members.
Eastern Realty Keppock Estates	P.E.I.	
Prebuilt Structures Williams, Murphy and MacLeod	P.E.I.	Principal officers and boards of directors share three members.

SOURCE: Task Force Research Studies Volume, Chapter 8.

director while companies B and C share a different
director. Thus a tenuous link exists between A and
C. Basically, this did not prove to be an empiric-
ally important problem. The only instance we found
of this type of indirect linkage was between Cedar-
land and Pinetree composite companies shown in
Figure 7.2. These two companies were linked
through a chain of two intermediary companies.
Linking them together would lead to a small rise in
the concentration figure for Toronto but not enough
of a rise to make a significant difference.

With a great deal of help from CMHC land mapping
personnel, local and provincial officials, and
many other individuals as listed in Chapter 8 of
the Task Force Research Studies Volume, Task Force
staff were able to put together the first fully
comprehensive and inter-city comparable data on
land ownership. Figure 7.3 gives the top four
nominal owners in each of the areas examined.
Summary concentration statistics derived on the
basis of the above criterion are given in Table 7.1.
Statistics are given both on the basis of nominal
ownership (compiled on the basis of the legal
owner's name) and on the basis of effective owner-
ship (compiled after treating all companies linked
together as a single firm). Detailed data giving
names of firms, etc. for each urban area can be
found in Chapter 8 of the Research Studies
Volume.

Calgary, the first entry in Figure 7.3 and Table
7.1, shows by far the largest increase in concentra-
tion due to corporate linkages. This is due to the
presence in Calgary of the two major groups. Nu-
West-Carma-Cairns account for 10.7% of all land in
the sample and B.A.C.M.-Abbey Glen-United Manage-
ment-Kelwood account for 16.5%. These linkages
raise the holdings of the top four companies from
30.4% to 46.1% of the sample in which Daon and
Qualico are the third and fourth largest companies
on the effective ownership list. The degree to
which concentration increases diminishes as we move
down the list of companies. Effective ownership
statistics show the top 25 landowners controlling
72.2% as opposed to 70.3% in the nominal ownership
statistics. This is simply due to the fact that
the lumping together of several of the larger
companies noted above necessitates bringing in some
quite small landowners to fill out the list of 25.

Charlottetown has a low 4-firm concentration ratio
of 11.8% in both the nominal and effective statis-
tics with one of the top 4 being a public sector
corporation (Prince Edward Island Housing Corp.).
Edmonton shows a 4-firm concentration ratio of

FIGURE 7.3

TOP 4 LANDOWNERS BY METROPOLITAN AREA
(Nominal Ownership)

Metropolitan Area	Top 4 Owners	Metropolitan Area	Top 4 Owners
Calgary	Carma B.A.C.M. Nu-West Daon	Ottawa	O.H.C. * Campeau Shenkman Costain
Charlottetown	East River Borden, R. P.E.I.H.C.* Dockendorff, W.	Regina	S.H.C. * Cairns L. Johnson R. McKell
Edmonton	Carma Abbey Glen Daon Celanese	Saskatoon	City of Sask.* C.M.H.C. * Embassy Boychuck, M.
Halifax	P.U.C. * N.S.H.C. * Hogan Whebby, W.	Toronto	Cadillac Markborough Bramalea Focal
Hamilton	O.H.C. * Winnipeg Home A. Cope & Sons Clock Inv.	Vancouver	*N.Vancouver Dist. B.A.C.M. Burnaby Dist.* British Pacific
London	Matthews Sifton Zaifman, P. Klinger & Hamilton	Winnipeg	*City of Winnipeg Metropolitan B.A.C.M. M.H.R.C. *
Montreal	Rock Enterprise Mun. de Longueuil* Monarch Rose Garden		

* Government Corporation and other Public Sector Owners

SOURCE: Task Force Research Studies Volume, Chapter 8.

TABLE 7.1

Ownership Concentration: Nominal and
Effective Ownership Statistics

Metropolitan Area	% owned by top 4 owners		% owned by top 10 owners		% owned by top 25 owners	
	Nominal	Effective	Nominal	Effective	Nominal	Effective
Calgary	30.4	46.1	51.5	62.2	70.3	72.2
Charlottetown	11.8	11.8	23.6	24.0	46.8	47.8
Edmonton	30.0	N.A.	50.0	N.A.	76.2	N.A.
Halifax	73.9	73.9	85.6	86.8	96.4	96.4
Hamilton	21.0	21.0	32.7	32.7	47.3	47.3
London	30.7	32.5	47.3	49.8	69.2	71.0
Montreal	13.6	N.A.	24.1	N.A.	39.0	N.A.
Ottawa	63.2	64.4	79.6	80.8	90.7	90.9
Regina	58.3	58.3	83.5	86.3	N.A.	N.A.
Saskatoon	84.5	98.1	99.2	99.8	N.A.	N.A.
Toronto	17.5	22.7	27.7	37.1	40.2	48.7
Vancouver	27.0	30.3	37.3	43.1	50.7	56.1
Winnipeg	48.7	49.5	64.8	66.4	74.2	75.5

SOURCE: Task Force Research Studies Volume,
            Chapter 8.

30.0% in Table 7.1. Time did not permit us to compile effective ownership statistics for Edmonton but it appears from our research that there are fewer linkages than in Calgary and thus while nominal statistics are roughly the same in the two areas, effective ownership is less concentrated in Edmonton. Note especially from Figure 7.3 that the top four owners in Edmonton are independent companies.

Halifax has a very high 4-firm concentration ratio of 73.9% in both statistics, which are dominated by public sector owners: the Public Utilities Commission and the Nova Scotia Housing Corporation. Hamilton has a very low concentration with a public sector owner (Ontario Housing Corporation) at the top of the list as noted in Figure 7.3. London, dominated by private sector owners, shows a small increase in the 4-firm ratio from 30.7% to 32.5% due to the linkages noted in Figure 7.2.

Montreal statistics show quite a low degree of concentration. We were unable to get a complete sample in Montreal which we feel resulted in a definite upward bias of these concentration ratios (discussed in Chapter 8 of the Research Studies Volume).

Ottawa, Regina, and Saskatoon show 4-firm concentration ratios (effective statistics) of 64.4%, 58.3%, and 89.1%, respectively. In each case, public sector owners dominate: Ontario Housing Corporation in Ottawa, Saskatchewan Housing Corporation in Regina and the City of Saskatoon, and C.M.H.C. in Saskatoon.

Statistics for Toronto in Table 7.1 show the second largest increase in holdings by the top four (after Calgary) and the largest increase in holdings by the top 25 due to corporate linkages. The top four account for 22.7% of the sample in the effective ownership statistics but only 17.5% in the nominal ownership statistics. This is due to a number of the linkages shown in Figure 7.2: Cadillac-Fairview-Don Mills, Markborough-Wimpey, Bramalea-Developmental, and S.B. McLaughlin-Focal. These four composite companies make up the top four (effective) landowners. Concentration in the top ten landowners is further increased by the Cedarland, Pinetree, and Acumen groups shown in Figure 7.2. These groups rank in positions 5, 6 and 9 respectively in the effective ownership statistics. The other composites shown for Toronto in Figure 7.2 contribute some small additional increases in concentration in the top 25.

Vancouver shows a degree of increase in concentration due to corporate linkages that closely parallels Toronto. The B.A.C.M.-Engineered Homes and Community Builders-North Port Properties composites rank third and fourth respectively in the effective ownership statistics and thus increase the holdings of the top 4 to 30.3%. The S. Spetifore and Sons Imperial Developments, Nu-West-Carma, and Daon-Dawson composites rank 6, 8 and 9 in the effective ownership statistics respectively and contribute to increased concentration in the top ten. The other three composites shown in Figure 7.2 contribute to raising the holdings by the top 25 landowners. Minor changes in the Winnipeg top four ratio (from 48.7% to 49.5%) are due to the linkages noted in Figure 7.2. Public sector owners dominate here also with the City of Winnipeg and the Manitoba Housing and Renewal Corporation in first and fourth places respectively as noted in Figure 7.3.

The conclusion from these data is almost embarrassingly simple given the tremendous amount of work that went into compiling it. Nowhere among the thirteen metropolitan areas researched is private ownership of undeveloped land concentrated enough to imply market power and resource mis-allocation. In all cases where ownership is concentrated (Halifax, Ottawa, Regina, Saskatoon), public sector owners dominate. In other areas, the highest percentage owned by the top four firms (effective ownership) is 49.5 in Winnipeg (also with a high degree of public ownership), followed by 46.1 in Calgary. Neither statistic is high by the traditional standards of industrial organization economics, and we know of no mitigating circumstances to not bring in a judgment that significant market power does not exist in these areas. This is not, of course, to suggest that the industry is not becoming more concentrated and that a problem might not develop in the future. This issue will be discussed in several subsequent chapters of this Report.

One instance of disagreement that should be noted occurred in the case of Ottawa, where several analysts were split over whether or not a large block of land owned by the Ontario Housing Corporation should be included in the sample (we did include it). If it was deleted, ownership in Ottawa would then be dominated by the private sector with the top four firms controlling about 60%: high enough to suggest the possibility of significant market power.

With this one possible exception, there is no
evidence that ownership of undeveloped land is con-
centrated in the hands of a small number of power-
ful developers. The only important assumption used
in reaching this conclusion is that different areas
of urban fringe land around metropolitan regions
are reasonably good substitutes or alternatively
that prices in these areas tend to fluctuate
together. Both the theoretical and empirical argu-
ments presented in Chapter 4 above support this
hypothesis.

Rejection of a broader conspiracy theory which is
based both on land ownership and on actual land
development requires only the additional assumption
that barriers-to-entry in land development are low.
All of the actual instances of entry form limited
but tangible evidence that barriers-to-entry at the
land development stage may not be very significant.
We therefore conclude that anyone wishing to make a
case for developers having market power on the
basis of concentration in the development stage
must be required to prove the existence of barriers-
to-entry. Existing evidence suggests that any
attempt to do so will not be successful.

A. The Physical Processes of Land Development

Lot servicing standards and the resulting costs have often been cited as a major determinant of residential lot prices. The purpose of this chapter is to investigate this argument. In doing so, we will wish to make an important distinction between two types of factors that contribute to increased servicing costs. The first is general price inflation which affects costs of labour and materials and the second is increases in the level of services required by municipalities. Most of our discussion will tend to focus on the latter both because servicing requirements are not well understood and because these requirements are under municipal and provincial control while general price inflation is not.

The conversion of raw land to serviced land suitable for building lots involves a series of steps varying in degree from relatively simple to extremely complex, depending upon local requirements. The standards for subdivision servicing that are now used in Canada have for the most part been set by each local municipality. Many of the basic standards were set before the present generation of engineers were born and are now old tradition. Some will be found as valid today as when they were established, but others seem to have become obsolete. In recent years, much research has been carried out for the purpose of identifying more efficient and economic standards. Many improvements have been identified, but their implementation in the ground is progressing very slowly indeed.

The requirements for servicing are a function of many factors governed mostly by local conditions. For example, septic tanks may be acceptable in semi-rural areas but generally are not acceptable in urban areas. Economic considerations are important since the level of services must be set within the economic limitations of the house buying market. Soil, topography and climatic conditions are important for a wide variety of reasons. In some areas, all underground services must be installed in trenches blasted in rock, whereas other areas have a soil that not only permits easy digging but almost total infiltration of runoff waters, thus eliminating the need for storm sewers.

In most areas, the availability of sewage treatment facilities is the major factor in providing serviced land. Except where septic tanks or similar individual treatment facilities are acceptable, a site must be able to be serviced by a municipal sewage treatment plant, either existing

or proposed. A new plant can be located reasonably close to the urbanized area if a suitable receiving stream is available; otherwise it will have to be located downstream at a point where the receiving body of water is sufficient to accept the effluent from the plant.

The trunk sewer required between the plant and the subject property may have to go through private lands requiring easements, which often can be difficult to obtain. Until a suitable connection to the property can be made available the site cannot be developed.

The selection of location of trunk sewers as well as the financing is usually a municipal responsibility. Development will therefore have to wait until the municipality is able to undertake the work, unless the developer is willing and able to participate in the financing of the trunk sewers.

Municipal water supply must also be provided before development can commence. Next to the availability of sanitary treatment capacity, water supply has often been the most important factor in deciding if and where development should proceed.

Outlet for storm drainage must also be provided. The past practice of collecting storm runoff as fast as possible by direct connections of roof water to storm sewers and installing a liberal number of catchbasins, both on streets and rear lots, has in recent years been challenged by the exactly opposite technique, namely reducing the runoff by maintaining or increasing the pre-development percolation rate and by reducing peak rate of runoff by various forms of on-site detention. The new technique would thus permit development in areas where development has been curtailed in the past due to flooding and erosion problems in existing streams.(1)

After the basic servicing requirements have been established and trunk facilities arranged for, the site will have to be serviced with some or all of the following services: a) sanitary sewers; b) storm sewers or ditches; c) watermains and hydrants; d) house service connections; e) paved roads with curbs and gutters; f) sidewalks; g) street lighting; h) hydro supply; i) gas distribution. Each of these services will have to be designed to accommo-

(1) Source: "Zero Increase in Storm Water Runoff" by Paul Theil & Associates. Published by Housing & Urban Development Association of Canada.

date the projected demand. The design is usually carried out by an independent consulting engineer engaged by the developer but subject to established municipal standards.

B. The Contribution of Servicing Costs to the Total Costs of Building Lots

In order to understand the importance of servicing costs in the total costs of producing building lots, the Task Force studied the cost components of various development projects over time across the country. The results of five of these studies are shown in Tables 8.1 to 8.5. These tables show the cost components of various development projects over time for respectively, Dartmouth, Ontario (Toronto, Ottawa, London), Winnipeg, Regina and Vancouver. The statistics for Ontario and Vancouver were compiled from a lengthy questionnaire prepared by the Task Force staff in cooperation with the consulting firm of Peat Marwick and Partners which acted on behalf of the participating developers. The nature of the questionnaire, the project selection procedure, and the verification procedures followed by the Task Force staff are all discussed in the next section. Table 8.1 (Dartmouth), Table 8.3 (Winnipeg) and Table 8.4 (Regina) were prepared by the Task Force staff.

A basic problem in cost analysis of this type is that some costs are incurred early in a project's life and must be financed over several years while other costs are incurred very near the end. As discussed in the next section of this report, we thus decided to capitalize all costs at an imputed interest rate which was the prime bank rate for the year plus two percent. Tables 8.1 to 8.5 thus show the breakdown of total capitalized costs for the end year of the project.

These figures show that "hard" servicing costs (i.e. the costs for the physical improvements to the raw land) were generally the single most important component of total costs. The only exceptions are one project ending in 1971 in Ontario and the projects ending in 1976 in Vancouver. In these cases, land costs formed the most important components. Approval process costs, "soft" servicing costs (basically consultants' fees), and other costs made up the balance.

A second conclusion that emerges from Tables 8.1 to 8.5 is that hard servicing costs made up a much larger percentage of total costs in Dartmouth, Winnipeg and Regina than in Ontario and Vancouver. This does not, of course, imply that servicing costs were higher in the former areas. Rather, it is likely a reflection of the fact that land costs were significantly higher in the latter two areas.

TABLE 8.1

HISTORICAL REVIEW OF 3 COMPLETED
LAND DEVELOPMENT PROJECTS IN DARTMOUTH

Variability of cost components
shown by end year

TAXES AND MARKETING

ADMINISTRATION

"SOFT" SERVICING

"HARD" SERVICING

APPROVAL PROCESS

LAND

SOURCE: Task Force Staff

NO. PROJECTS
IN SAMPLE:
END YEAR:

TABLE 8.2

HISTORICAL REVIEW OF 33 COMPLETED
LAND DEVELOPMENT PROJECTS IN ONTARIO

VARIABILITY OF COST COMPONENTS
SHOWN BY PROJECT END YEAR

OTHER (TAXES, MARKETING)
ADMINISTRATION
SOFT SERVICING
HARD SERVICING
APPROVAL PROCESS
LAND

NO. PROJECTS
IN SAMPLE:

SOURCE: Peat Marwick & Partners

TABLE 8.3

HISTORICAL REVIEW OF 18 COMPLETED
LAND DEVELOPMENT PROJECTS IN WINNIPEG

Variability of cost components
shown by end year

TAXES AND MARKETING
ADMINISTRATION
"SOFT" SERVICING
"HARD" SERVICING
APPROVAL PROCESS
LAND

NO. PROJECTS						
IN SAMPLE:	1	1	3	2	4	7
END YEAR:	1971	1972	1973	1974	1975	1976

SOURCE: Task Force Staff
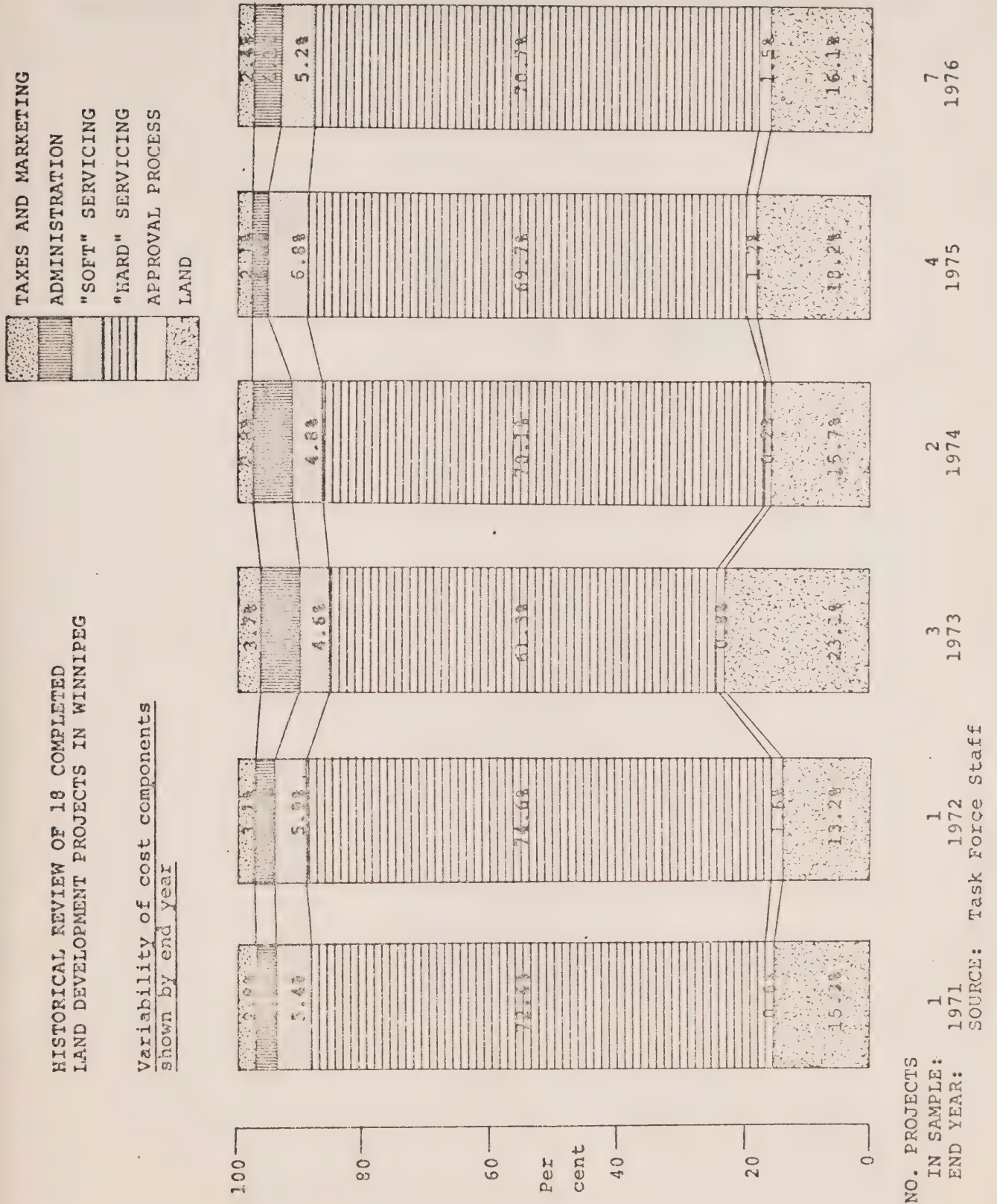
TABLE 8.4

HISTORICAL REVIEW OF ONE COMPLETED LAND DEVELOPMENT PROJECT IN REGINA
COST COMPONENTS, 1974

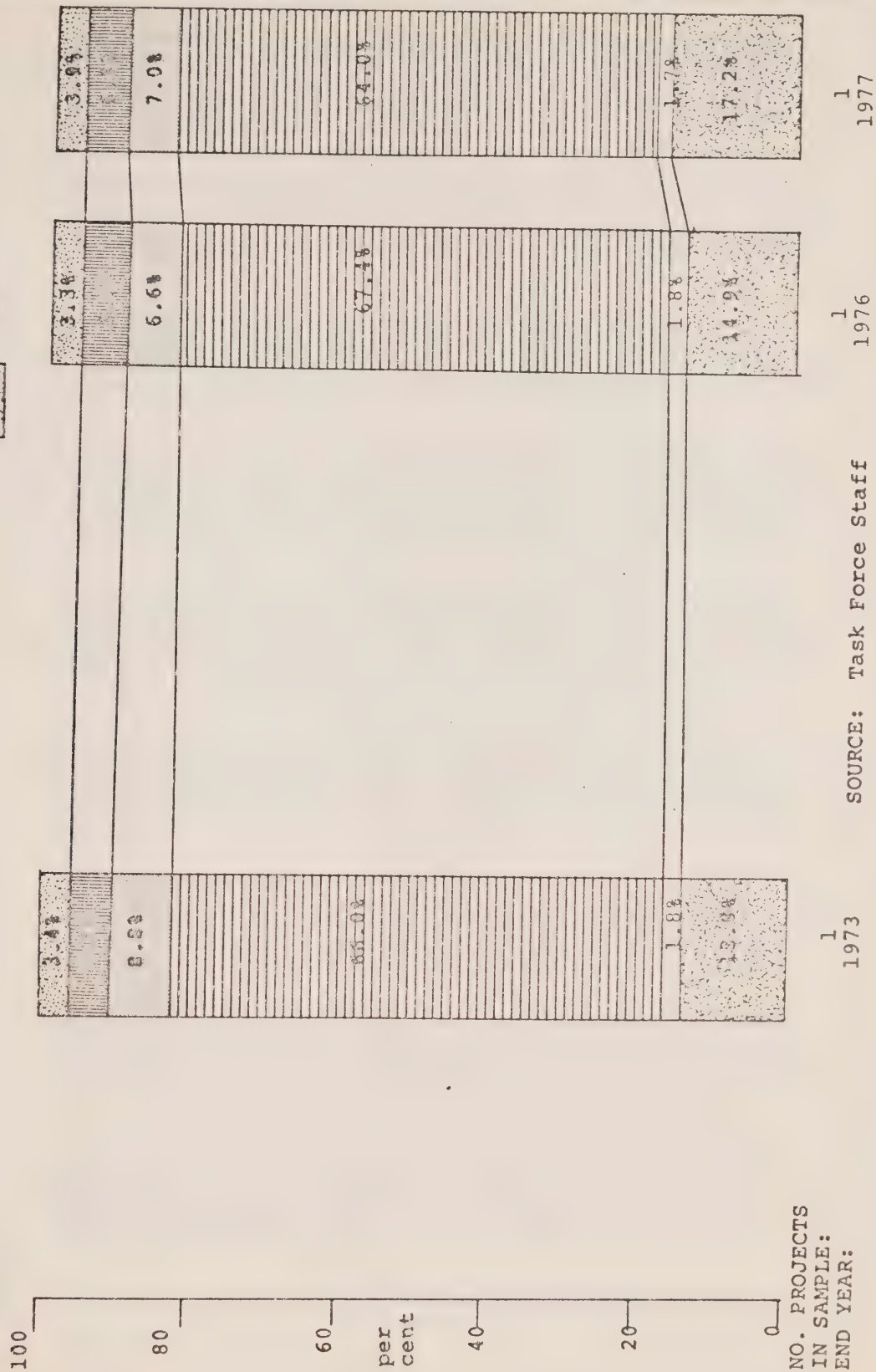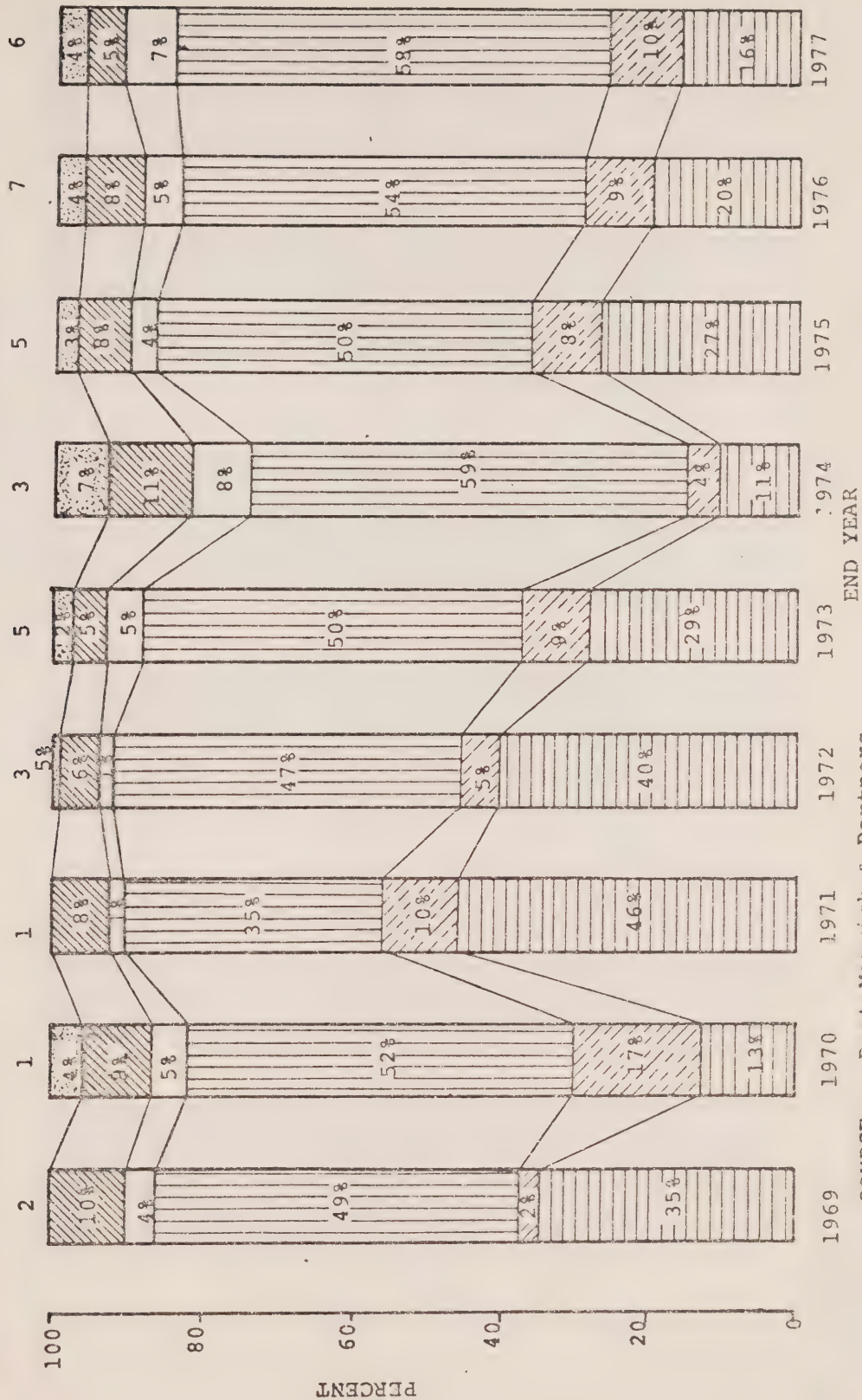|	
4%	Other
	2% Administration
14%	Soft Servicing
74%	Hard Servicing
	2% Approval Process
4%	Land

Source: Task Force Staff

TABLE 8.5

HISTORICAL REVIEW OF SIX COMPLETED LAND DEVELOPMENT PROJECTS
IN VANCOUVER - VARIABILITY OF COST COMPONENTS SHOWN BY PROJECT YEAR END

NO. OF PROJECTS IN SAMPLE

OTHER

CONSULTANTS FEES

HARD SERVICING

LEVIES & IMPOSTS

ADMINISTRATION

LAND

SOURCE: Peat Marwick & Partners
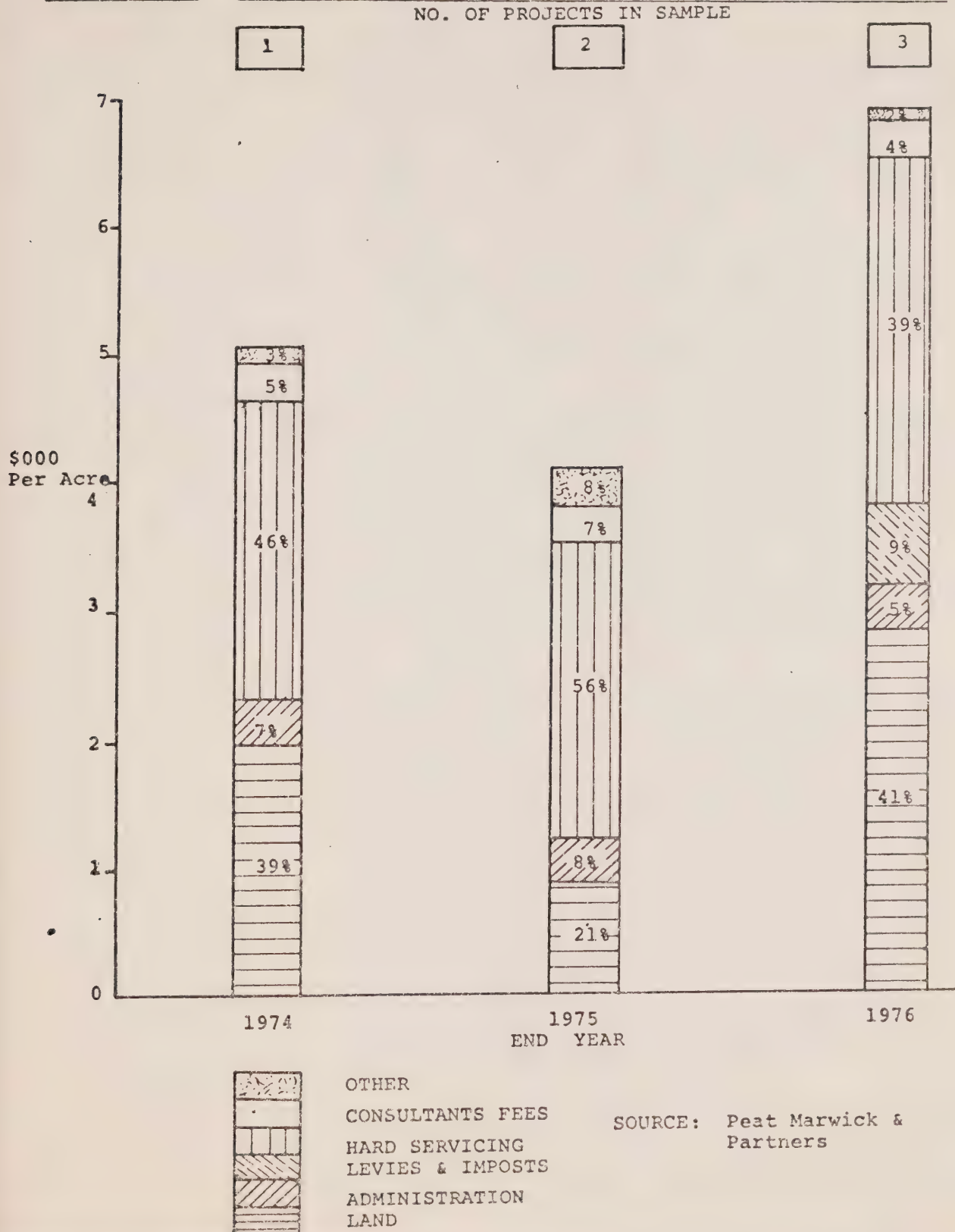
A third and final conclusion that can be drawn from these data is that no consistent trend emerges over time in Dartmouth, Ontario, Winnipeg and Vancouver. The data are, of course, very limited due to the small sample size. We can, however, certainly say that the data do not support any theory that suggests servicing costs or indeed any component of costs have become a relatively more important component of total costs over time.

The fact that servicing costs have not risen significantly faster than other costs does not, of course, mean that there is no cause for concern. We shall, therefore, now turn to the absolute changes that have occurred in servicing costs and some of the reasons for those changes.

C.   Trends in Servicing Costs

Internal servicing costs for selected municipalities are shown over time in Figure 8.1. Costs were provided to the Task Force by consulting eng'neers across the country and are tabulated in Figure 8.1 on a $ per lineal foot of road basis. The influences of general national price inflation beginning in 1972 are very obvious in Figure 8.1. Price inflation was reflected all across the country in servicing costs and as noted earlier there was little or nothing that individual municipalities and provinces could do about this powerful national and indeed international force.

But Figure 8.1 also shows a fair amount of variation among areas despite the general rising trend. Since labour and materials costs do not vary widely among the areas studied, it is likely that much of this variation can be explained by differences in servicing standards. Indeed, Figure 8.1 shows that in 1976 the largest difference of all occurs between Scarborough and Brampton of the Toronto region, where both municipalities of necessity have similar climates, soil, topography, labour costs and materials costs. Because these important factors can be held constant for these two municipalities, it seems most appropriate for the purposes of this Report to present a case study of the differences between them in order to present an in-depth appreciation of the role played by servicing standards. Readers interested in detailed data on servicing standards all across the country are referred to the Task Force Research Studies Volume, Chapter 9, on servicing standards.

Prior to the case study, a definition of "excessive standards" would be useful. Excessive standards are standards which provide a higher level of service than is needed. An example is the requirement for sidewalks on both sides of minor local

FIGURE 8.1

TOTAL COST FOR
INTERNAL SERVICING OF
RESIDENTIAL SUBDIVISIONS

SOURCE: TASK FORCE STAFF
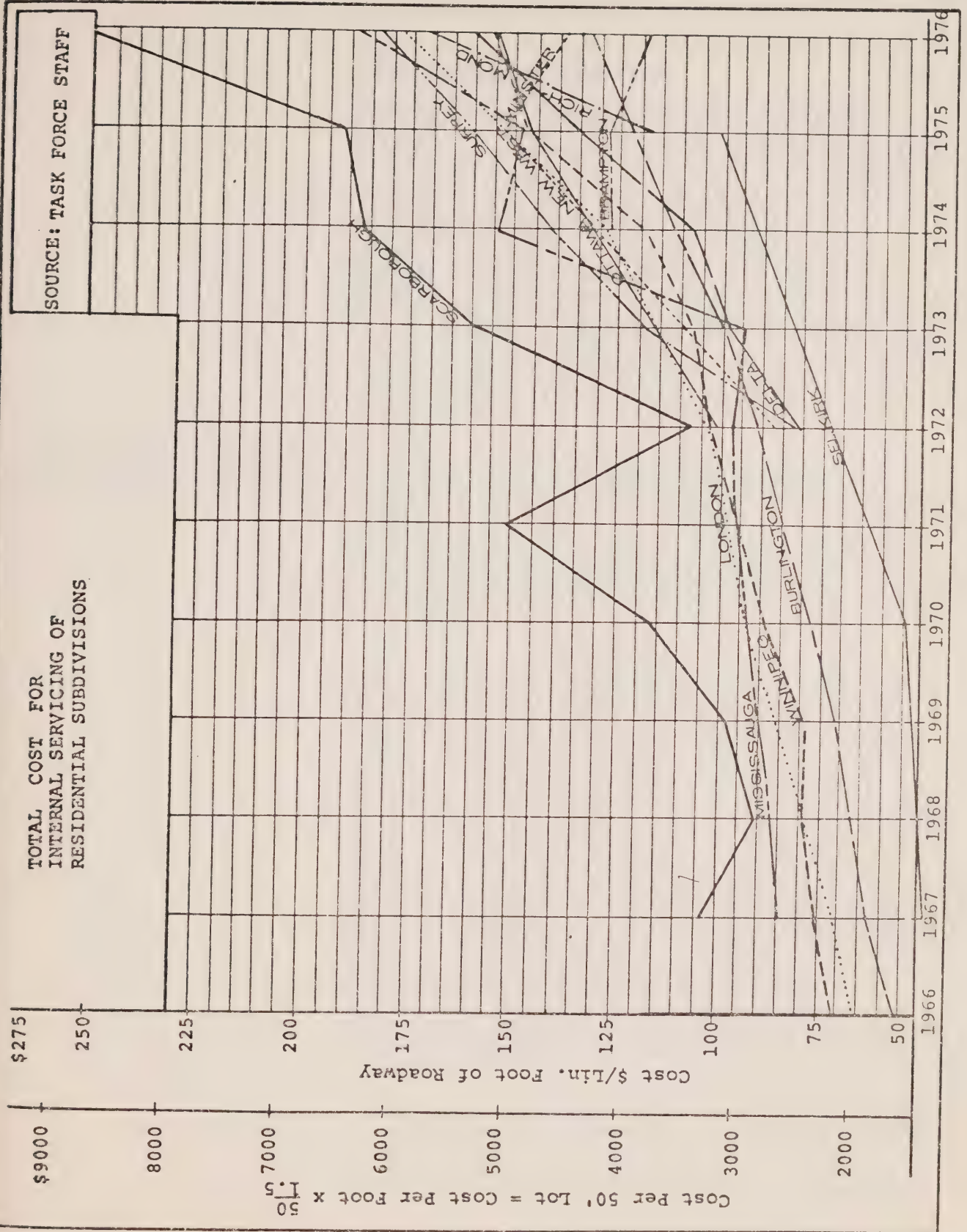
roads such as cul-de-sacs.

Additionally, some standards are outdated by improper or obsolete engineering techniques. An example is the requirement in some municipalities that storm sewers be installed at increased depth to permit foundation drains to be connected by gravity. This will result in increased risk of basement flooding (explained later) as well as more costly sewers. Another example is the requirement in some municipalities that watermains be a minimum of six inches in diameter, even when they are beyond the last hydrant and serve only domestic use with a low demand; on dead-end streets, this often results in sediments in the pipes, requiring more frequent flushing, which could have been avoided if pipes had been sized based on flow requirements.

D. Differences in Standards
Case Study 1: Scarborough

When we compare the individual costs for Scarborough with those of other municipalities, it is evident that the storm sewers are very expensive indeed, representing in 1976 $71.00 per lineal foot of road as compared to the 21-city average of $38.00(1) and as compared to $21.25 in Brampton. Nevertheless Scarborough also has a high occurrence of basement flooding, even in recently developed urban areas.

Scarborough uses a five year rainfall frequency curve for sewer design which is about the average of the municipalities which responded; but it requires that foundation drains be connected to the storm sewer.(2) This is a technically incorrect method of discharging water from foundation drains. Any runoff in excess of the design capacity, as well as possible obstruction in the sewer system, will obviously cause a back-up into the foundation drains causing a hydrostatic pressure on the basements. If this exceeds six to ten inches above the basement floor, the floor will crack and let storm water flow into the basement. This will flow via the floor drains into the sanitary sewer system and cause an overloading of that system, resulting in turn in back-ups of sanitary sewage in basements downstream which may, due to different sewer elevations, not have been subjected to excess hydrostatic pressure from the storm sewers. This sequence explains to a great degree the reasons for the severe flooding problems in Scarborough and in

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(1) Complete data sets are presented in Chapter 9 of the Task Force Research Studies Volume.

(2) This is shown diagramatically in Figure 8.2.

FIGURE 8.2
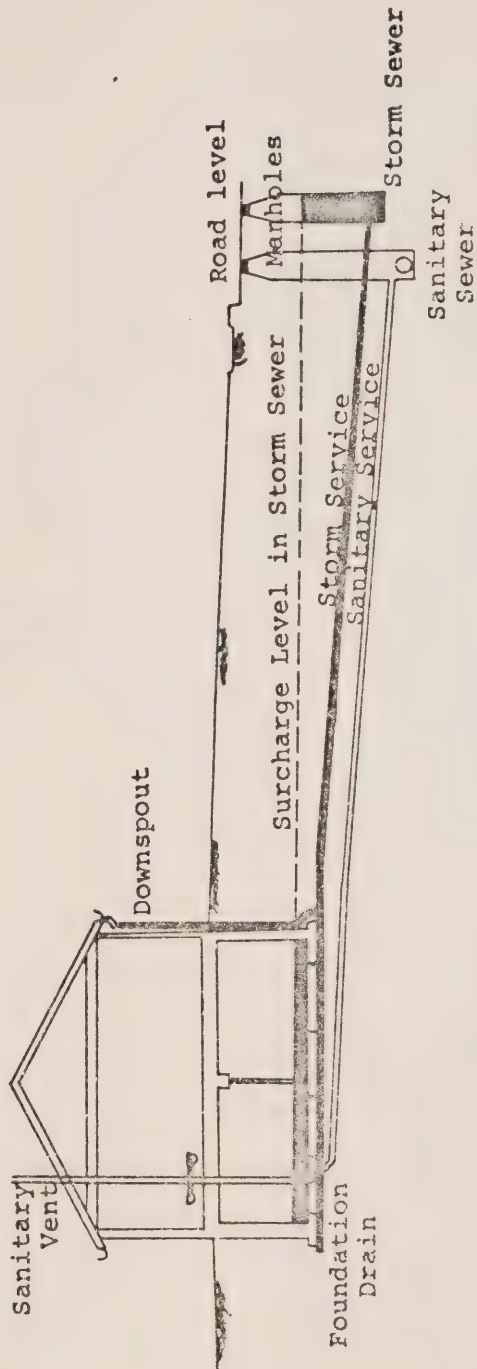
FOUNDATION DRAINS CONNECTED
TO STORM SEWER BY GRAVITY AND
DOWNSPOUT CONNECTED TO STORM SEWER

SOURCE: Task Force Staff

several other Canadian municipalities.

Scarborough has not as yet recognized the dual drainage concept (minor-major) which permits runoff in excess of the pipe capacity to follow surface routes to an acceptable outlet without causing hydrostatic pressure on basements. Scarborough does not, for residential streets, appear concerned with flows in excess of the five year design frequency intensity, with the result that much damage has occurred to basements during storms of higher intensity. When it is also recognized that Scarborough is reported to be one of the municipalities where approvals for engineering drawings are most difficult to obtain, one may question if the approval procedure is more oriented towards optimum drafting standards or towards the best engineering design.

Now we have a better idea of the reasons for the flooding, but why are the costs so high? A further analysis indicates some unusual requirements, namely:

1. concrete rather than crushed stone as bedding for sewers;

2. sewer pipe 21" in diameter and larger must have two manholes to make a 90° turn in flow;

3. curvilinear sewers only permitted for sewer 30" or larger in diameter.

These standards are both excessive and outdated.

The same phenomenon is also found elsewhere to varying degrees, namely sewers costing more but giving less value than sewers costing less but giving more value, as in Brampton. Scarborough's sanitary sewer and watermain costs are reasonable when compared to other municipalities reflecting similar standards. But Scarborough's road costs are the highest of·all next to those of Mississauga. Standards for pavement widths are high for minor local roads, but about average for the others. Sidewalks are, however, required on both sides of all streets, even minor local, and this requirement certainly explains part of the high cost. The fact that Scarborough generally has storm sewers much deeper than most other municipalities results also in more trench settlements, requiring more repairs during the contractor's maintenance period, which further causes the costs to go up. With the foundation drains connected by gravity to the storm sewer, and to prevent cross-

over conflict with the sanitary sewers, the depth of cover over the sanitary sewer is often increased beyond what is otherwise necessary. The high cost of roadwork, when compared to other municipalities, is due in part to the requirement of extra manholes at intersections for pipes 21" diameter or larger. This can triple the number of manholes at intersections, thus increasing the cost of compaction around the manholes, and adjustment of manhole tops to final grade prior to paving. Since road construction and maintenance increases with the number of manholes in the street, this factor must be allowed for in the construction costs.

It is evident that the standards in Scarborough are high in terms of cost but low in terms of performance.

In the absence of analysis, one might expect the municipality with the lowest reported costs to have the lowest standards. From Task Force data we find that the costs in Brampton for the year 1976 were $129.21 per linear foot of road, compared to $271.00 in Scarborough. A detailed analysis of the standards and the costs reveals the following.

Case Study 2:   Brampton   The costs stated are for developments similar to those used in the Scarborough analysis, except only that new design techniques were used. These techniques are in part based on experiments carried out in the Central Park Development in Bramalea before the introduction of Regional Government, with later modifications as required by the City of Brampton and the new Region of Peel. The innovative servicing techniques used in Central Park before Regional Governments resulted in an average cost per foot of road of $73.65 in 1972, $80.63 in 1973 and $88.05 in 1974. However, after the introduction of Regional Government on January 1, 1974 some of the new techniques were no longer permitted. As a result of this, as well as the fact that the Central Park Development was a Comprehensively Planned Development (C.P.D.) permitting the highest efficiency not only in planning, but also in servicing, the servicing costs increased to $140.03 per foot in the latter part of 1974 but declined somewhat in 1976 to $129.21.(1)

The following is an analysis of costs for a conventional development carried out in Brampton in 1976, still, however, using more value-effective servicing

(1) Again, complete data sets and documentation are provided in Chapter 9 of the Task Force Research Studies Volume.

standards. It is obvious these standards result in much lower costs than those experienced in Scarborough in the same period, but how much lower are the standards used in Brampton? If we look at the cost of storm drainage, we find a cost in Brampton of $21.25 per foot of road which compares to $71.00 for Scarborough. However, the Brampton example uses an additional sewer in the street to serve foundation drains only. This is illustrated in Figure 8.3. Since this pipe is installed in the same trench as the sanitary sewer and the cost is not separated, we must compare the total cost, which is as follows:

	Storm Sewer	Sanitary Sewer	Total
Scarborough	$71.00	$15.00	$86.00
Brampton	$21.25	$16.63(inc. F.D.C.)	$37.88

In other words, the 3-pipe system in Brampton costs less than half of the 2-pipe system in Scarborough.

A comparison of the standards reveals that Brampton recognizes the dual drainage concept with the following criteria:

The storm sewer (minor system) is designed as a convenience to pedestrian and vehicular traffic, with all runoff from a storm with an intensity of a two year frequency for residential areas to be accommodated in the pipes. Excess runoff is accommodated overland by a carefully designed road system preventing flooding of private properties for storms with an intensity of a 25-year storm or higher. (In many instances a 100-year storm can be accommodated.) Since foundation drains are not connected to the storm sewers by gravity, there is no possibility of hydrostatic pressure being exerted on basements, with resulting structural damage and flooding. The foundation drain collector is being used extensively in Brampton as an alternative solution for an outlet for foundation drains. The reasons were that the Region would not permit connections to sanitary sewers and individual sump pumps were found less satisfactory on such a large scale. This solution of the foundation drain collector is technically and economically very superior to the system used in Scarborough and many other municipalities.

In summary, the standards used for storm drainage in Brampton not only result in substantial cost savings but, from a technical point of view, give many times more protection against flooding than

FIGURE 8.3

Sanitary Vent

Roof Drain

Conc. Splash Pad

Manholes

Foundation

Sanitary Service

Foundation Drain Service

Foundation Drain

Dual Manhole Construction

Storm Sewer (Surcharged)

Roof Drain

Conc. Splash Pad

Sidewalk

Catch Basin

Sanitary Sewer

Foundation Drain Collector
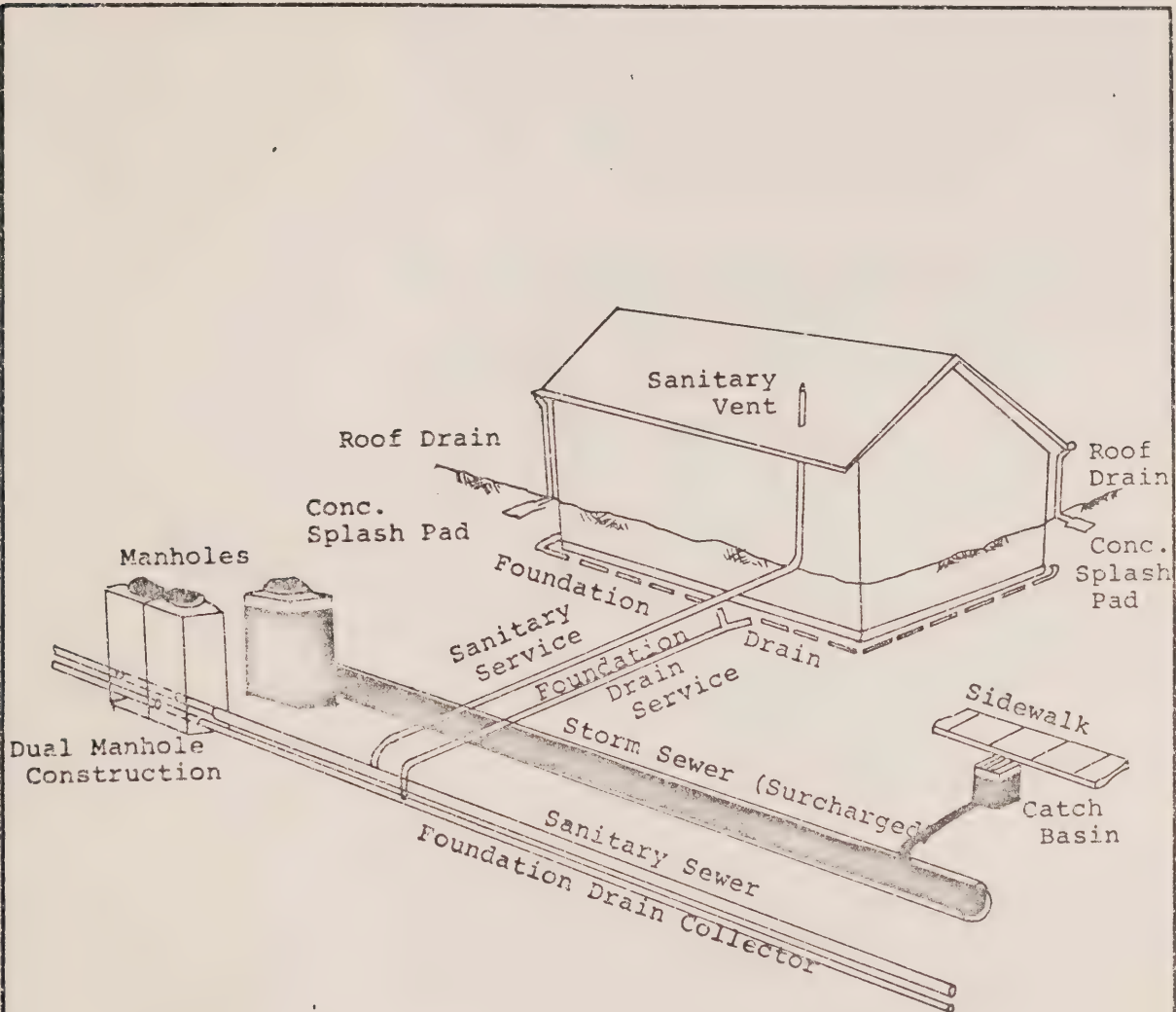
FOUNDATION DRAIN
CONNECTED TO FOUNDATION
DRAIN COLLECTOR BY GRAVITY

SOURCE: Task Force Staff

those used not only in Scarborough, but in many other municipalities as well. What cannot be explained, however, is the resistance by many municipalities to part with the old and technically inferior standards. The fact that neither the federal agencies nor provincial agencies involved in storm drainage seem to want to take the steps necessary to make the changes that are long over-due is not easy to understand either.

We also notice a marked difference between Scarborough and Brampton in the cost of construction of roads. The Scarborough cost of $98.00 per foot including sidewalks compares with $45.89 per foot in Brampton. The lower costs in Brampton are due in part to:

1) less trench settlements because of shallower storm sewers;

2) fewer manholes;

3) 26 foot pavement on roads (cul-de-sacs and small crescents) rather than 28 feet;

4) sidewalks not normally required on minor local roads and only on one side on other residential streets;

5) using a type of concrete curb more resistant to damage from builders' traffic thus reducing replacement cost.

This example compares two municipalities, which although in close proximity to one another have the widest spread in costs among the municipalities studied. This difference in 1976 was about $140 per lineal foot of road or about $4,600 per lot. (1) This is of course coupled with the fact that the servicing standards in the municipality with the lower costs (Brampton) will yield a higher level of performance.

Unjustified and obsolete servicing standards where they exist are probably due to one or more of a number of factors. Often high standards seem to result as a solution to past problems. Larger storm sewers are designed in response to past flooding, for example. Often, however, the solution in spite of the extra costs does not solve the problem and in fact creates a more serious new problem. Larger storm sewers for example can move

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(1) The relation between the two measures is shown in Figure 8.1.

flooding downstream where it becomes more serious. Second, there seem to be many cases where standards are merely an inappropriate copy of standards in some other municipality.

In some cases municipalities will ask for oversized services to accommodate anticipated future needs. This should not be classified as an excessive standard if the plans for future work are reasonably firm and the additional cost of oversizing is properly evaluated in comparison to installing additional services later. An example of a good balance between cost and benefit is oversizing of trunk sewers, to allow for future growth. By increasing a pipe size by 3" in diameter, the capacity will increase by 25% to 50%, whereas the cost will only increase by 5% to 10%, all depending upon the size of the pipe.

The root of the problem appears to be that some municipalities recognize only traditional experience and strongly resist the significant technical advances that have occurred in the past decade. Municipalities usually do not have qualified staff to carry out the necessary research to properly review and apply new techniques. Politicians take a dim view of experiments particularly if success cannot be guaranteed. Municipal officials are likely suspicious that consulting engineers acting for developers are concerned only about initial costs and not about future maintenance costs. Finally, senior levels of governments which could coordinate and fund research into municipal servicing have so far made very little effort to do so, at least not in terms of practical results.

The fact that the improvements spread at such a slow rate may to some degree be the result of the concern that where cost savings result, they may not be passed on to the home buyer. An example of this attitude is a recommendation to the Scarborough Council dated June 4, 1975 by the Engineering Department:

> "Unless it can be guaranteed that reducing the level of servicing will be passed on to the eventual homeowner, no reduction in the level of servicing will be considered at this time."

But the resistance does not always stop there, as evident from a subsequent recommendation by the same Department to Scarborough Council on June 18, 1976:

> "that developers and their consulting engineers be made aware that any attempt to circumvent

existing standards will slow the approval process, cause loss of credibility of the industry and above all, increase costs."

In areas both in Canada and the United States where innovative servicing methods are being used, the result has been very successful. There is ample evidence that the new techniques can provide services at an equal or higher level, at substantial cost savings as well.

E. The Effects of Increased Servicing Costs on Lot Prices

We are now in a position to examine the degree to which rising servicing costs have contributed to rising lot prices. The answer to this question is virtually the same in all urban areas across the country: changes in servicing costs were closely related to changes in lot prices up until 1972-73 at which time lot prices rose at a much faster rate than servicing costs through 1975. This proposition is illustrated in Figure 8.4. The broken line in Figure 8.4 presents an index (1970 = 100) of servicing costs in Scarborough derived from Figure 8.1. Scarborough was chosen here because its costs generally increased very rapidly during the years 1972-75 as shown in Figure 8.1. This index is compared in Figure 8.1 to a second index (1971 = 100) of Toronto lot prices from the NHA data in Table A1 of the Appendix. It is generally felt that these data had a downward bias during the boom years. Thus Figure 8.4 compares a lot price index with a downward bias during the boom years to a servicing cost index that rose as fast or faster than average during the boom years. We see that up to 1973, these two indices moved very closely together. In 1974-75, however, lot prices exploded and appreciated far faster than servicing costs. Similar patterns occurred almost everywhere.

This example is constructed with a deliberate bias in favour of showing that increasing servicing costs were a large contributor to the price boom of 1972-75. Yet the data reject this hypothesis in a rather dramatic fashion. Even larger divergences between lot prices and servicing costs occur in many other cities across the country. Contrary to the claims of a number of analysts, the Task Force thus concludes that servicing costs were not a major contributor to the boom.

This certainly does not suggest that the Task Force concludes that the problems mentioned earlier in this chapter are not of significant importance. As has been emphasized in several of the earlier chapters almost all areas across the country no longer have a land prices boom. Thus factors affecting lot supply are most certain to again play

FIGURE 8.4

SOLID LINE - LOT PRICE INDEX (TORONTO)   1971=100
BROKEN LINE - SERVICING COST INDEX (SCARBOROUGH) 1971=100
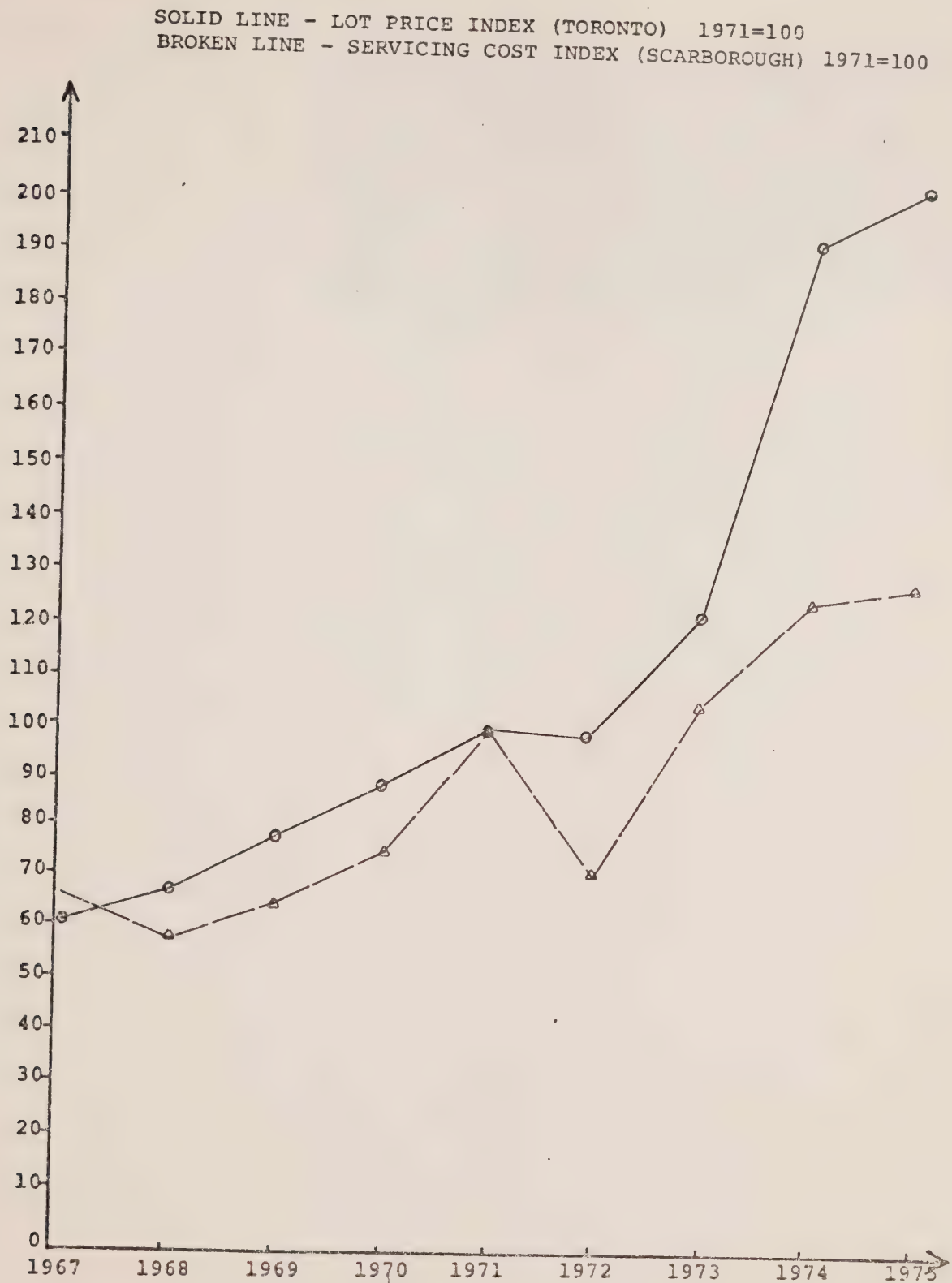
SOURCE: Figure 8.1 and Appendix 1

an important role in long-run price determination over the next few years. Servicing costs are one of the most important of these factors and our analysis has suggested that these costs are significantly affected by municipal standards. Adoption of new technology and reasonable standards in Brampton was seen to reduce costs $4,600 per lot relative to Scarborough. While this may be extreme, savings of smaller amounts ought to be possible if similar attitudes are adopted elsewhere. Some of these savings would be passed forward to consumers under current market conditions.

Various chapters of this report deal in detail with particular aspects of land development. Raw land prices, taxation, servicing, and the subdivision approval process either have or will receive attention. We have not, however, discussed individual development projects in a unified way. Nor have we said much about the development corporations that make up the land development industry. The purpose of the present chapter is to deal with both topics. The first part of this chapter will present and discuss data on a number of development projects in Ontario (Toronto, London and Ottawa); Alberta (Calgary and Edmonton) and Vancouver. The second part will present a financial analysis of some of the dominant firms in the industry.

In order to obtain a better understanding of the development process, the Task Force undertook a Developer Survey which provides specific historical information on the characteristics of specific development projects carried out during the period from the early 1960's to the present time. The information collected in the survey describes selected projects in terms of their land assembly, the approval process, servicing unit costs and the sale of lots. In addition, detailed financial information describes the costs and revenues of each project on an annual basis and permits the estimation of profits on the basis of the time value of money.

The data were compiled from a lengthy questionnaire prepared by the Task Force staff. Peat Marwick and Partners acted on behalf of the participating development corporations. The selection of the development projects for analysis was carried out in close coordination with the Task Force staff. Meetings were held where the Task Force staff participated in the selection process and agreed to the sample of projects chosen for analysis in Ontario and Alberta. As the data were collected, Task Force experts in finance, accounting, land development, engineering and planning, checked and verified the accuracy of the data. Somewhat less monitoring was done by the Task Force staff for the projects chosen for Alberta and British Columbia simply because the Task Force was satisfied that the methodology would produce results of comparable quality to the Ontario results.

The survey dealt only with successful companies and largely with successful projects; indeed the Task Force devoted considerable effort to ensuring that many of the individual projects were very successful, in the category of "big winners". Dealing only with successful companies likely puts an

upward bias on profit figures. Furthermore, an
analysis limited to successful projects is not
fully representative of losses in the land develop-
ment business.

It is also important to note that the individual
completed projects analyzed present an historical
review only of what occurred during recent years,
and this is essentially a highly inflationary
period. They are not fully representative of
current conditions in the land development business
and extreme caution must be used in drawing conclu-
sions about the future of land development. A
good deal more will be said about this problem at
the end of this chapter.

Simultaneously, the Task Force commissioned a
financial analyst to prepare a study of the overall
financial performance of land development corpora-
tions. This was done for two purposes. First, it
allowed us to see how the performance of the
corporations as a whole compared to their perfor-
mance on individual development projects. Second,
it served as a check on the accuracy of the
figures provided by the developers in the Developer
Survey. Basically, our conclusion on this matter
is that there is no reason to believe that the data
contained in the Developer Survey is not accurate.
Similarly, the results of the Developer Survey are
quite consistent with the servicing figures
compiled by the Task Force's consulting engineer
which were presented in the previous chapter.

A. Results of the Developer Survey

The questionnaire prepared for the developer survey
requested the following information: (a) the
costs and revenues by year for each project; (b)
the assembly schedule; (c) the steps in the
approval process and their timing; (d) servicing
unit costs; and (e) the sales schedule including
number of lots sold. Costs were recorded for each
year of the project's life according to the
following categories: (a) land cost; (b) levies
and imposts; (c) other approved process costs; (d)
land servicing costs (sewers, roads, landscaping,
etc.); (e) soft servicing costs (primarily
consultants); (f) marketing costs; (g) taxes;
(h) administration; and (i) other miscellaneous
costs. Revenues were also recorded for each sales
year according to their type (interim farm use,
internal transfer, sales to third party).

For Ontario, listings of all major projects
carried out since 1963 were requested and received
from the 13 development corporations (ten public;
three private) involved. The projects were listed
by name, location, size in acres, year the

assembly commenced, year development (servicing)
commenced, year sales commenced, and by one of
three estimated levels of profitability. Of the
approximately 150 projects submitted, 115 or 77% of
the total were completed or significantly into a
sales program. Thirty-one projects were eliminated
from the total universe for reasons of small size
(less than 50 acres) or location in market areas
that were not of specific interest to the Task
Force. It should be noted that the elimination of
these 31 projects removed from the sampling
universe all projects which had been listed as
unprofitable.

Eighty-four projects were retained for detailed
classification according to the characteristics
listed above and for a distribution analysis. Of
the 84, a target sample of 35 was chosen which
represented the same profile of characteristics as
the 84 projects. Of the 35 projects requested
from Toronto, Ottawa and London, 33 responses were
given. One of the 35 could not be completed due
to lack of early records, and another was more
appropriately classified as a joint venture
purchase and sale without any actual development to
the land.

In the Alberta market 67 projects were submitted.
Of these, 62 or 93% of the total were completed or
significantly into a sales program. Three of these
projects were eliminated from the universe as they
were not in the Calgary or Edmonton markets, the
only areas of specific interest to the Task Force.
Fifty-nine projects were retained for detailed
classification according to the characteristics
listed above and for a distribution analysis. Of
the 59, a target sample of 13 was chosen which
represented the same profile of characteristics as
the 59 projects.

In the Vancouver market 8 projects were submitted;
these were all completed or significantly into a
sales program. These 8 projects were all included
in the target sample.

Of the 13 projects requested in Alberta, 12 respon-
ses were given. One of the 13 could not be
completed due to a lack of data for earlier years.
Of the eight projects requested in Vancouver, six
responses were given. Two of the eight projects
were more appropriately classified as sales with-
out any actual development of the land.

The first analysis performed on the data from these
projects was designed to show the movement of costs
and revenues over time. Since the cost streams

associated with a land development project take
place over several years, it is necessary to bring
them to a common base in order to make valid
comparisons of trends. These comparisons are
complicated by the fact that projects are of
considerably different durations, and show consid-
erably different patterns of cost and revenue
timing. These facts present two problems. First,
the inflationary environment during which the
projects were undertaken was strong, particularly
in the areas of land and construction costs. Thus,
inter-year comparisons are misleading unless the
data are corrected for price level changes. In
addition, costs must be financed over a period of
time, often several years, before they generate
significant revenues.

Our decision was that all costs and revenues should
be capitalized at an imputed interest rate. This
interest rate is equal to the prime bank rate for
the appropriate year plus two percent. Since, in
general, interest rates reflect the overall rate
of inflation capitalizing costs and revenues in
this manner has the effect both of compensating for
inflation, and of accounting for a portion of the
cost of financing improvements during the period
before these improvements generate significant
revenues.

Table 9.1 presents the average cost and revenue
changes per acre for the 51 projects. The time
periods noted with each province are the periods
spanned by the end years of the projects in that
province. Table 9.1 shows that land costs during
these years grew significantly faster in all areas
than the consumer price index (CPI) which is
presented for comparison. Total costs rose slower
than the CPI as did total revenues per acre in
Ontario. Net revenues, however, increased at
slightly more than double the rate of increase in
the CPI in Ontario establishing that overall the
period was one of increasing profitability. Total
costs in Alberta rose slower than the CPI while
total revenues rose significantly faster. Exactly
the opposite result is presented for Vancouver.
Unfortunately, Peat Marwick did not provide the
Task Force with changes in revenues for Alberta and
British Columbia. As a final point, we might note
that these data also lend strong support to a
finding advanced earlier in the chapter on servic-
ing costs; price rises in recent years have not
been primarily caused by increases in costs.

Internal rates of return were calculated for all
projects and portfolios of projects. This method-
ology permits an assessment of the profitability of

TABLE 9.1

Historical Review of 51 Completed Land Development
Projects in Ontario, Alberta and British Columbia

Annual Rates of Change in Costs and Revenues
per Acre

	Annual Rates of Change		
	Ontario 1969-1977 (33 projects)	Alberta 1971-1976 (12 projects)	British Columbia 1974-1976 (6 projects)
Land Cost	11.0%	20.5%	28.0%
Servicing Cost	8.0%	13.5%	6.5%
Total Cost	4.5%	7.0%	16.0%
Total Revenue	5.5%	16.0%	3.0%
Net Revenue	14.0%	N/A	N/A
CPI *	6.5%	8.0%	10.5%

* Different CPI figures are due to the different time periods
spanned by the three samples.

SOURCE: Peat Marwick and Partners

various ventures, while taking into account the
time value of money. The fact that the period
under study was characterized by high general
inflation presented a particularly difficult
problem. The decision of the Task Force was that
all financial transactions should be recorded in
unadjusted dollars. In other words, they are
recorded in the actual dollars paid or received.
Consequently, the calculated returns on investment
(ROI) include both a real return and an inflation-
ary return. The resulting profit figures are thus
higher than they would be if costs and revenues
were recorded in constant (adjusted for inflation)
dollars - but reflect similar results to those
calculated by generally accepted accounting
principles.

We note that Peat Marwick presented the Task Force
with rates of return calculated from after tax
profits. Pre-tax profit rates for development
corporations are presented in sub-section B below
in order to permit comparisons between companies
which are not distorted by their differing tax
rates.

Figure 9.1 shows the distribution of annualized
returns on investment (ROI) for the selected
individual projects completed during the period
1969-1977 in Ontario. The median after tax ROI
is 18.5%. Simply put, the annualized rate of
return on investment is the average return realized
in each year of the project. During most of the
years of the project, before any sales, the return
is negative. In the later years of the project,
sales revenues are realized. The ROI analysis
smooths out the differences to derive the average
annual return.

Figure 9.2 plots the data from Figure 9.1 according
to the beginning and end years of the projects.
Figure 9.3 then plots the ROI's for each project
against the duration of the project and Figure 9.4
plots the ROI's against the cost of the project
which serves as a measure of project size.

Figures 9.2, 9.3 and 9.4 show a number of important
results. In general, there appears to be no strong
correlation between the projects' ROI's and the
project characteristics of duration and size. Two
implications of these findings are of particular
interest. First, it appears that projects based on
land bought many years prior to development did not
earn returns significantly different from returns
earned by projects based on land bought only a few
years prior to development. In other words, the
evidence does not support the view that profit

FIGURE 9.1

HISTORICAL REVIEW OF 33 COMPLETED LAND DEVELOPMENT
PROJECTS IN ONTARIO

DISTRIBUTION OF ANNUALIZED RETURN ON INVESTMENT (ROI) FOR
PROJECTS COMPLETED IN THE PERIOD 1969-1977

* Project Revenues were 27%
  above average
+ Project costs were 9%
  below average

SOURCE: Peat Marwick and Partners

FIGURE 9.2

HISTORICAL REVIEW OF 33 COMPLETED
LAND DEVELOPMENT PROJECTS IN ONTARIO

VARIABILITY OF
ANNUALIZED RETURN ON INVESTMENT
BY START AND END YEAR OF PROJECT

SOURCE: Peat Marwick and Partners

START YEAR

END YEAR

Data values by row (end year):

- 77: 28.9 | 21.8 | | 12.9 / 11.2 | 25.7 | 22.7 | 24.8
- 76: 26.4 / 17.6 | 16.3 / -5.3 | | 5.7 | 13.3 | 32.6 | 16.2
- 75: 13.7 | 39.6 / 14.6 | | | 3.9 | 21.5
- 74: | 58.5 / 35.4 | | 18.4 | 30.1 | 7.9
- 73: 24.8 | | | 38.2
- 72: 33.0 | 6.9 | | 71.2 | 15.7
- 71: | 7.3 | | -3.9
- 70:

105
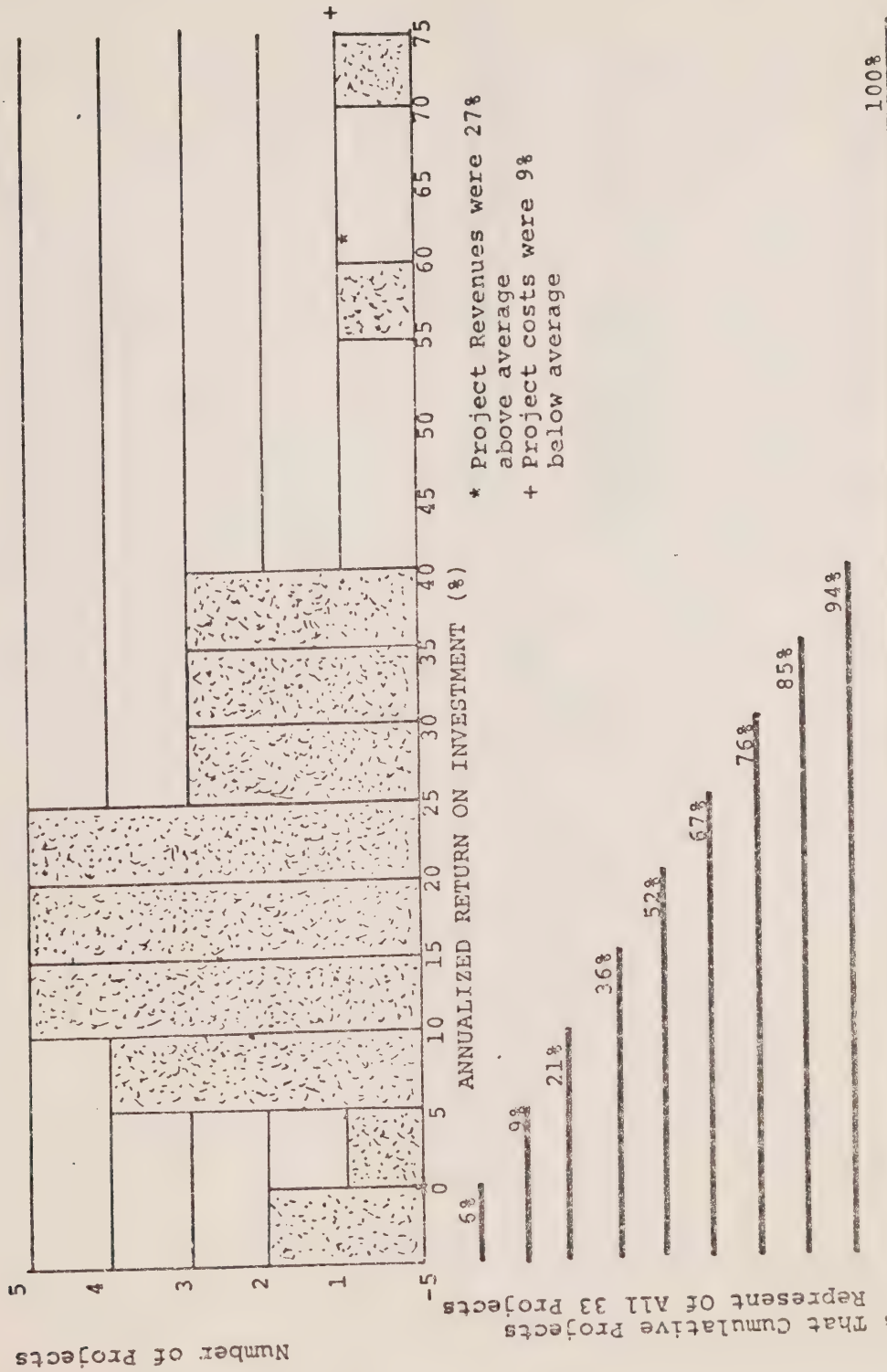
FIGURE 9.3

HISTORICAL REVIEW OF 33 COMPLETED LAND DEVELOPMENT PROJECTS IN ONTARIO

VARIABILITY OF ANNUALIZED RETURN ON INVESTMENT (ROI) BY DURATION
OF PROJECT, FOR PROJECTS COMPLETED IN THE PERIOD, 1969-1977

DURATION OF PROJECT (YEARS)   SOURCE: Peat Marwick & Partners

FIGURE 9.4

HISTORICAL REVIEW OF 33 COMPLETED LAND DEVELOPMENT PROJECTS IN ONTARIO

VARIABILITY OF ANNUALIZED RETURN ON INVESTMENT (ROI)
BY PROJECT COST, FOR PROJECTS COMPLETED IN THE PERIOD 1969-1977

PROJECT COST ($ 000, 1977)

ANNUALIZED RETURN ON INVESTMENT (%)
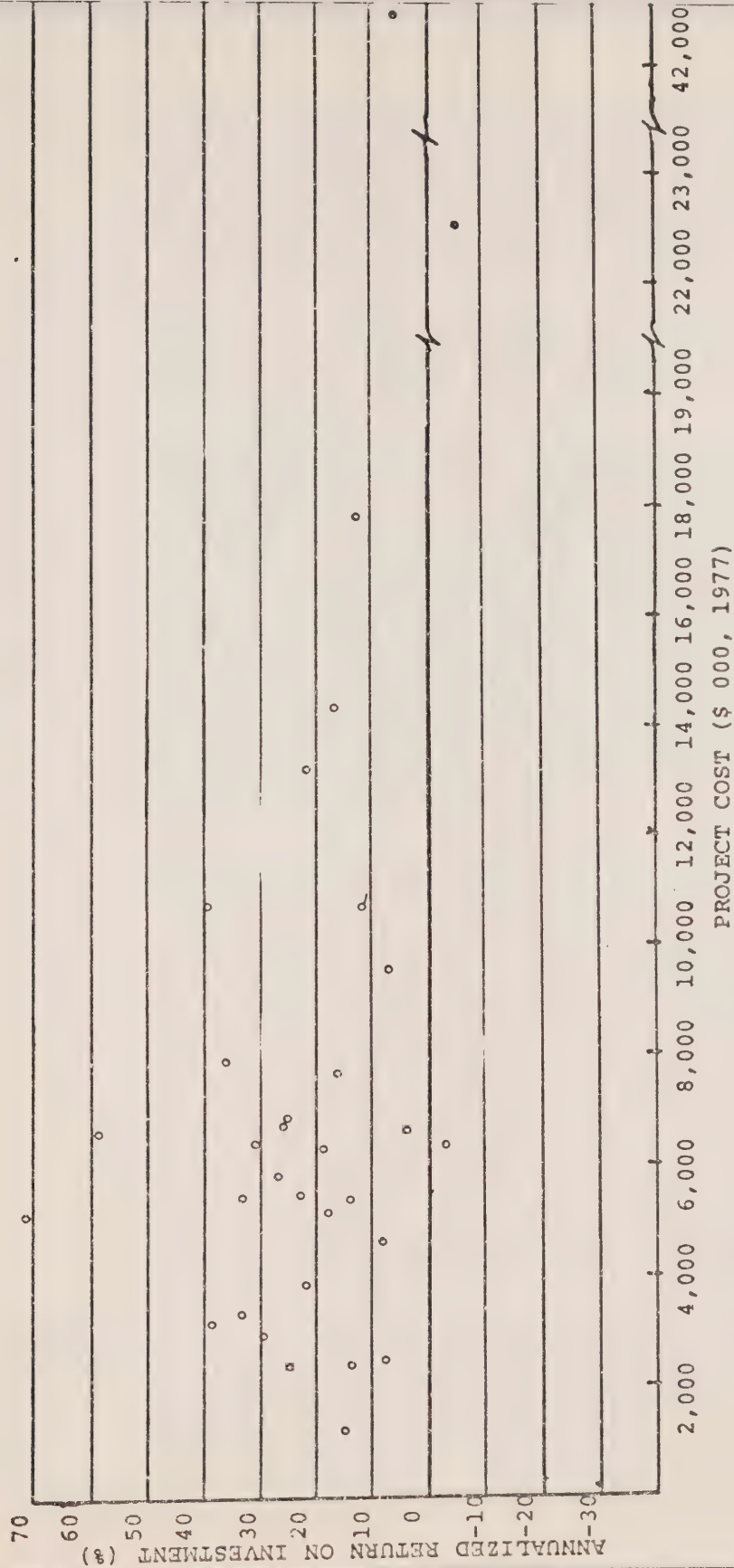
SOURCE: Peat Marwick and Partners

rates were higher the longer the land was banked by
the developer. Second, large projects were not
more profitable than small projects. In fact it
appears that there may be a small negative relation-
ship between size and profitability although the
Task Force has not performed a technical test of
this proposition.

Both results seem to contradict conventional
wisdom. A number of arguments seem to assume, for
example, that larger rates of returns are obtained
the longer that land is held.

Many analysts also seem to assume that there are
increasing returns to scale in land development so
large projects are inherently more profitable than
small projects. This assumption has also been used
to argue in favour of direct government participa-
tion in land development on the grounds that the
government has the financial resources for lucra-
tive large-scale development. A study by Andrew
Muller has used this assumption to argue that there
may be barriers-to-entry in the land development
industry since increasing returns to scale make
entry by new firms difficult. This was discussed
in Chapter 7 above on ownership concentration.
All of these positions must now be reconsidered in
light of the above results.

Results from the west were quite similar. Figures
9.5 through 9.8 present after tax ROI's for Alberta
and Vancouver. The median after tax ROI in each
case is about 15% which is somewhat less than the
18.5% figure noted for Ontario. However, given the
small sample sizes here, this difference should not
be regarded as statistically significant. With
similar caution due to the small sample size, we
can note from the Alberta statistics in Figure 9.7
that the length of the project seems to have little
to do with profitability as in the case of Ontario.
For the five projects that ended in 1976 and the
three projects that ended in 1974, no relation
between profit and start year is discernable.
Similarly, little relationship was found between
project size and profitability. While a small
positive relationship was found in Alberta, a small
negative relationship was found in Vancouver.

B. Corporate Financial
   Performance

An analysis of successful individual subdivision
projects tells only a limited story about the land
development corporations. At any point in time, a
corporation consists of a portfolio of projects
some of which are in early stages and some of which
are near completion. Included in this portfolio is
often some amount of "bad inventory": land which
now seems like it can never be developed due to

FIGURE 9.5

HISTORICAL REVIEW OF 11 COMPLETED LAND DEVELOPMENT PROJECTS IN ALBERTA

DISTRIBUTION OF ANNUALIZED RETURN ON INVESTMENT (ROI)

FOR PROJECTS COMPLETED IN THE PERIOD 1971-1976
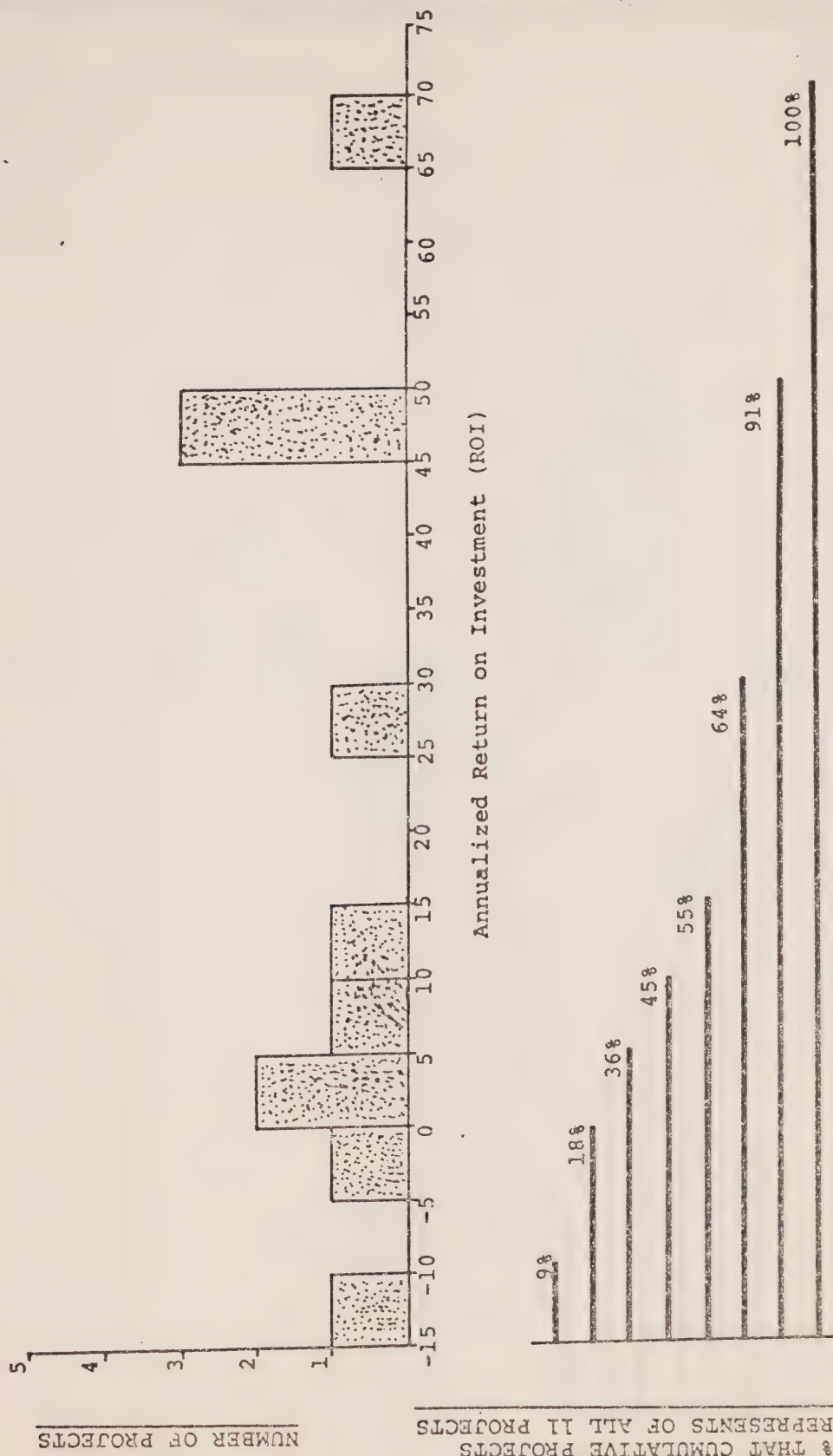
SOURCE: Peat Marwick and Partners

FIGURE 9.6

HISTORICAL REVIEW OF SIX COMPLETED LAND DEVELOPMENT PROJECTS IN VANCOUVER

DISTRIBUTION OF ANNUALIZED RETURN ON INVESTMENT (ROI)

FOR PROJECTS COMPLETED IN THE PERIOD 1974-1976
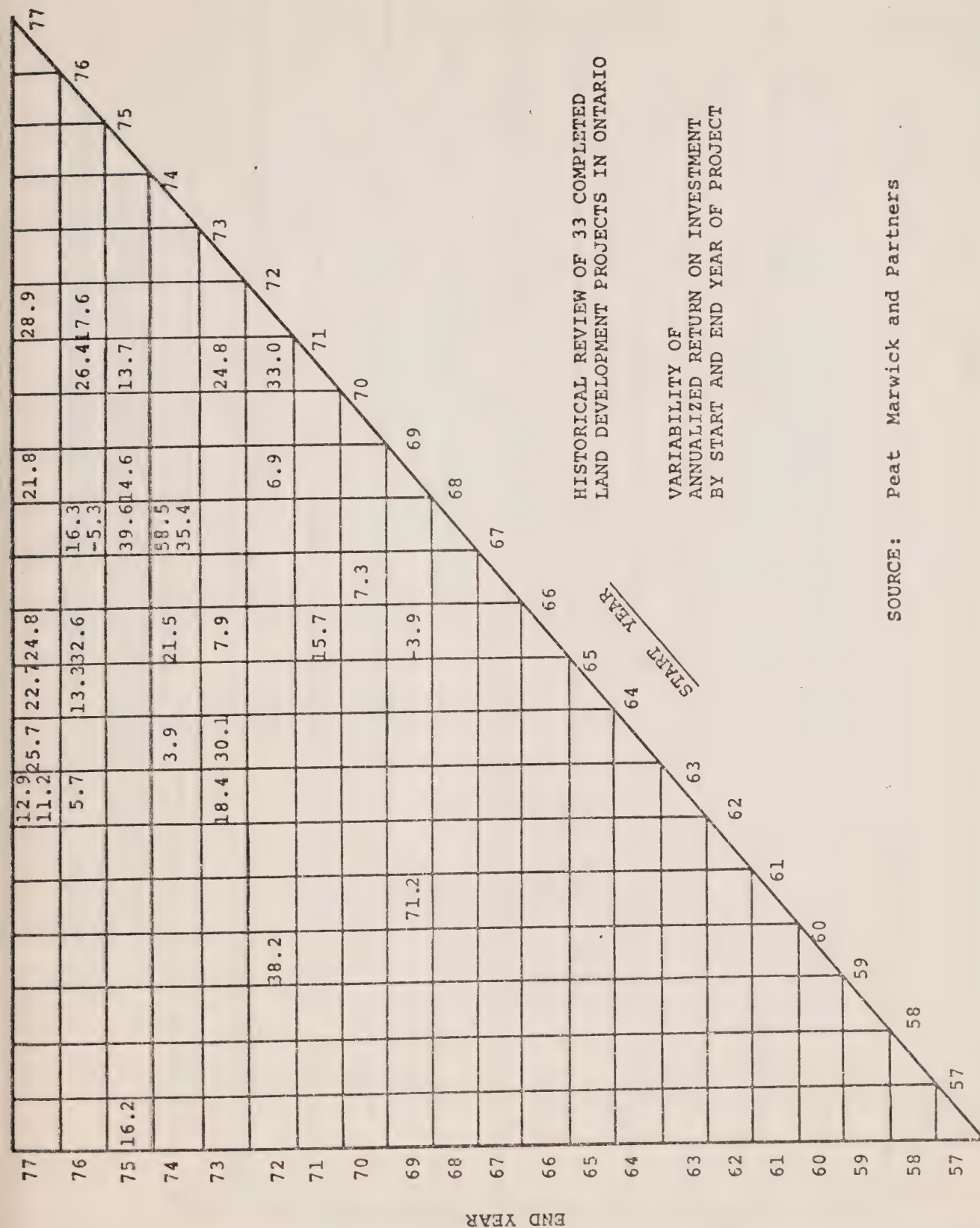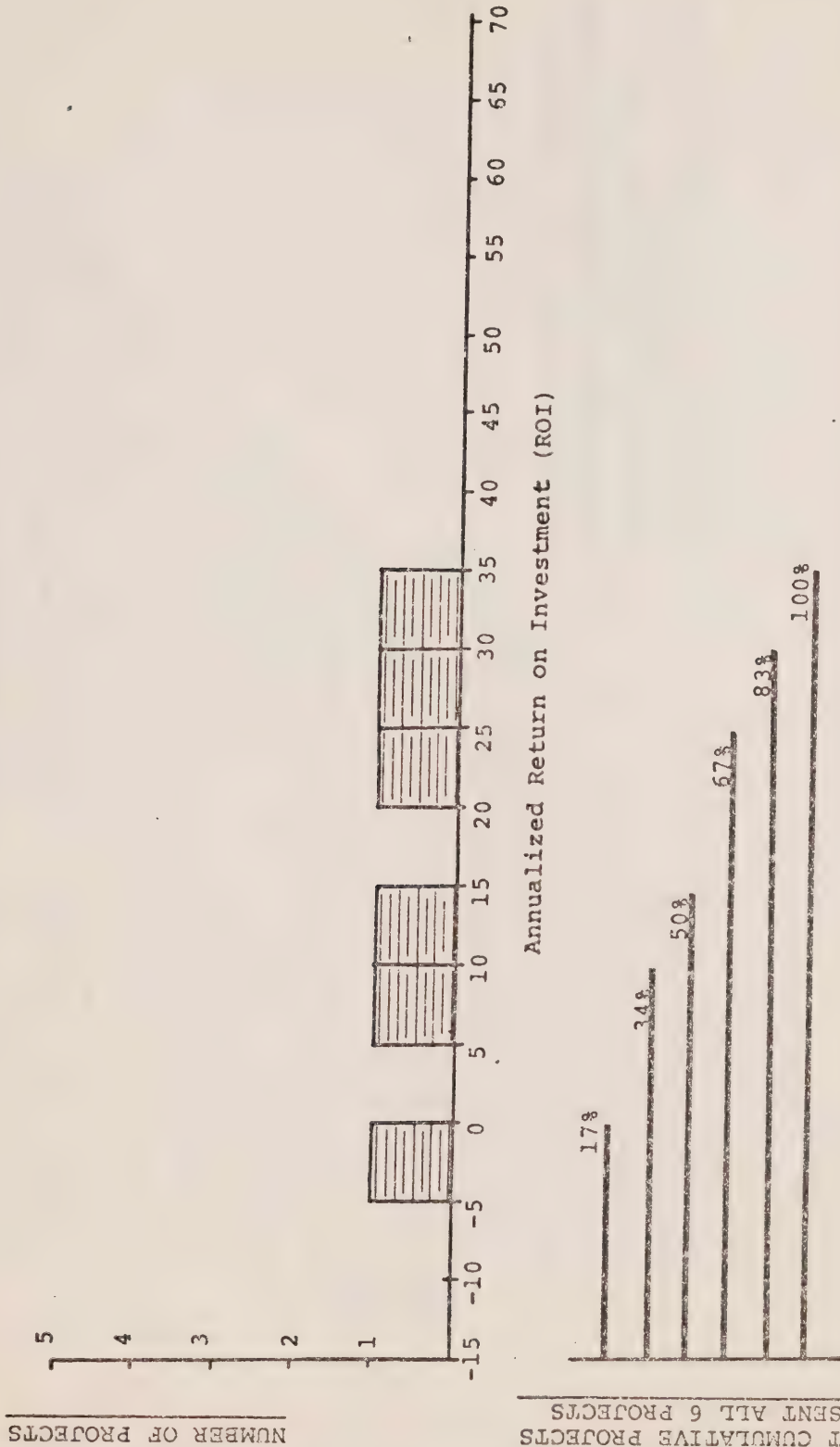
SOURCE: Peat Marwick and Partners

FIGURE 9.7

HISTORICAL REVIEW OF 11 COMPLETED
LAND DEVELOPMENT PROJECTS IN ALBERTA

VARIABILITY OF ANNUALIZED RETURN
ON INVESTMENT.
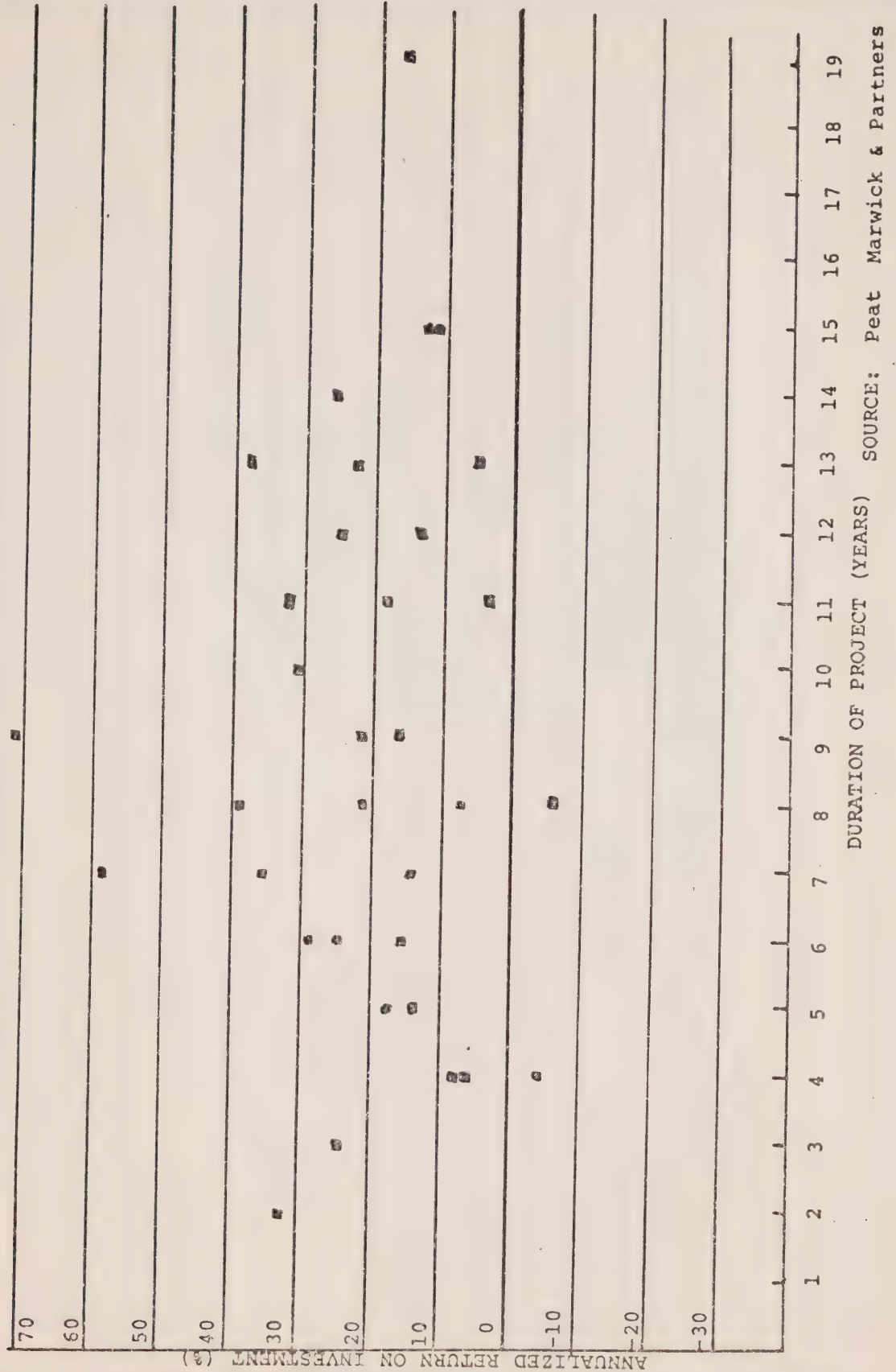ROI BY START AND END YEAR OF PROJECT

SOURCE: Peat Marwick and Partners

FIGURE 9.8

HISTORICAL REVIEW OF SIX COMPLETED
LAND DEVELOPMENT PROJECTS IN VANCOUVER

VARIABILITY OF ANNUALIZED RETURN
ON INVESTMENT.
ROI BY START AND END YEAR OF PROJECT
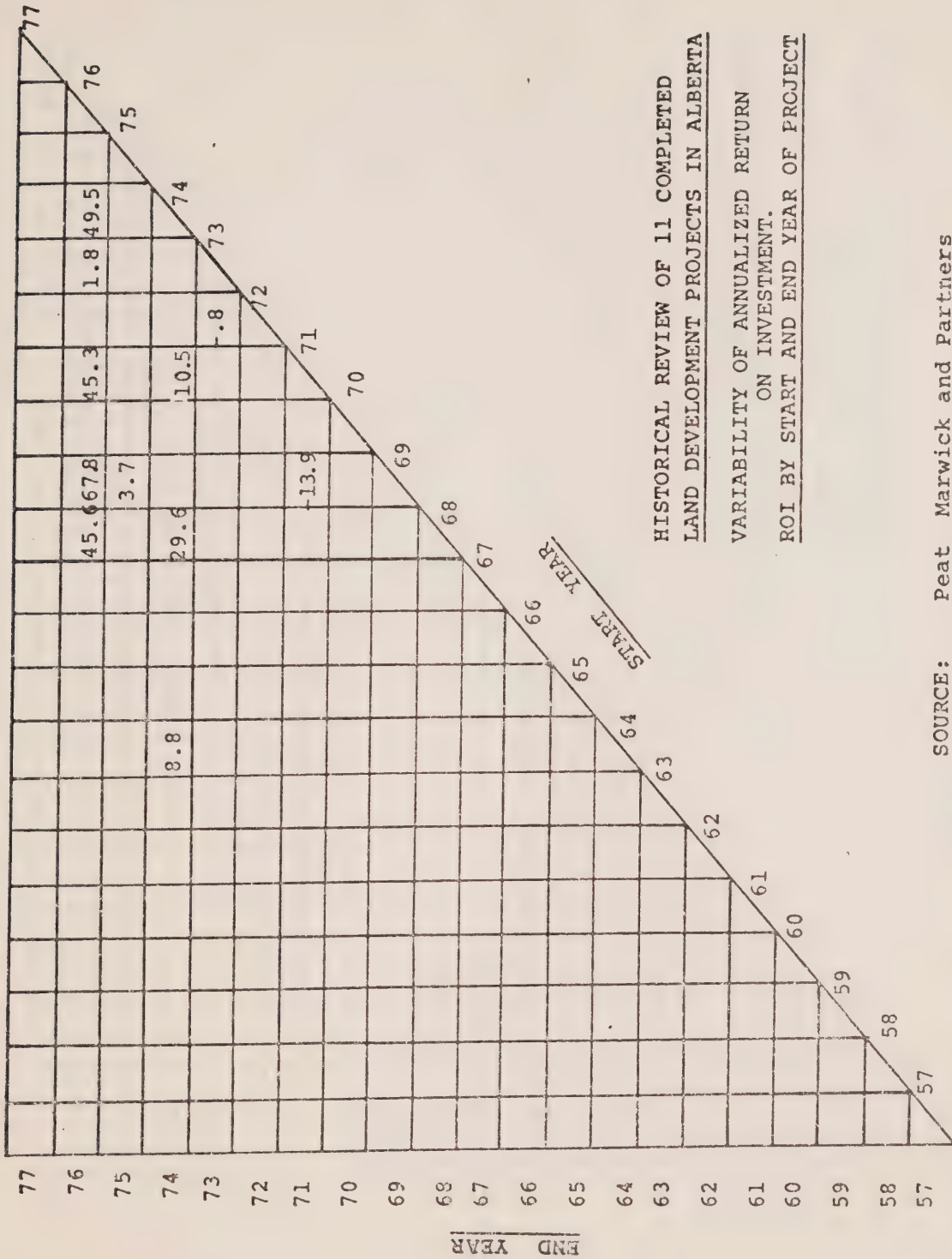
SOURCE: Peat   Marwick and Partners
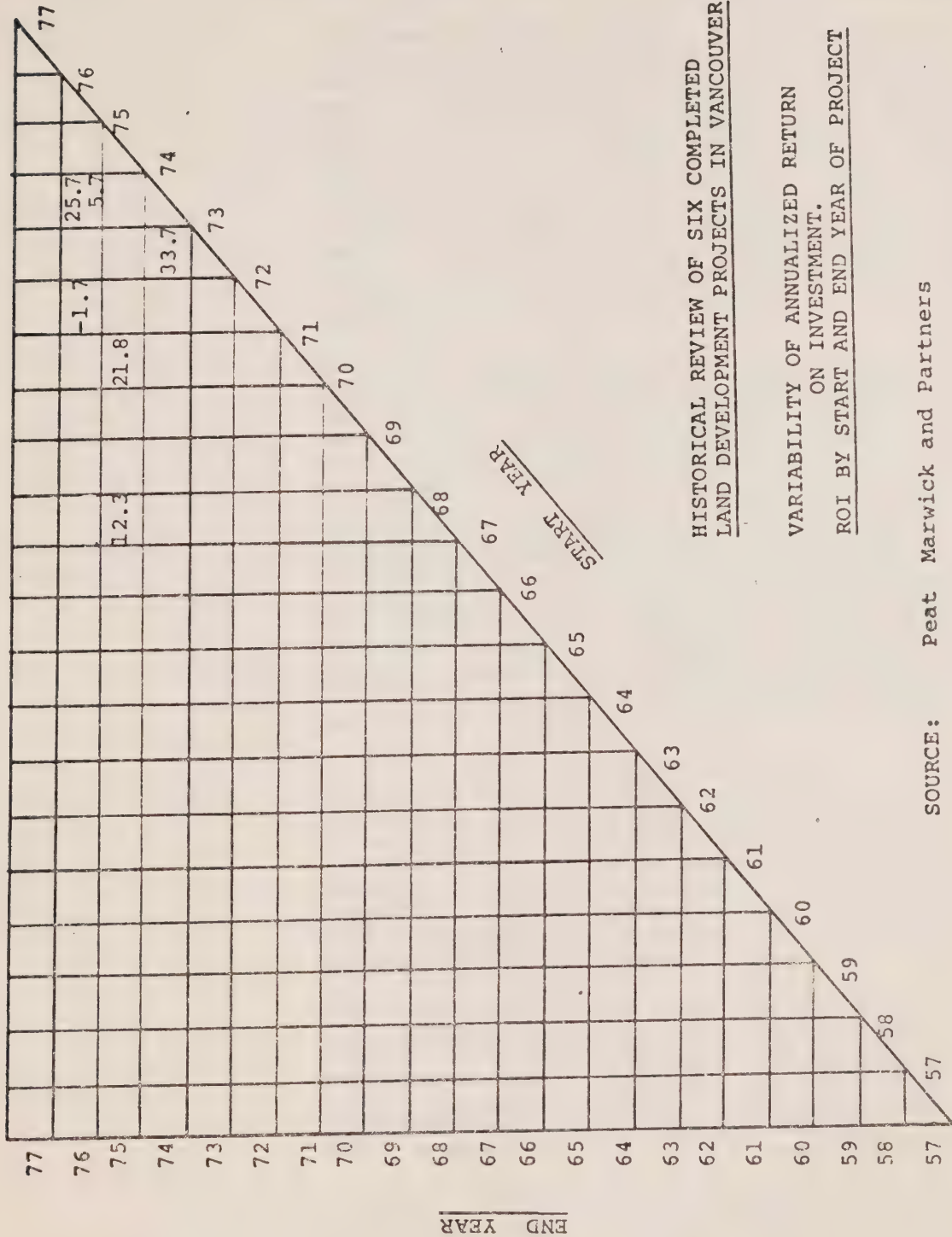
some problem such as an adverse zoning change.

In order to obtain a more complete picture of the
land development corporations, our financial
analyst undertook a study of the major publicly
owned land development corporations for the Task
Force. There are many privately owned companies in
the business, but data on these companies are not
generally available. For reasons he explains in
detail in his study, our financial analyst con-
cludes that there is not a great deal of difference
between the large private and public firms,however,
and an analysis limited to publicly owned firms
should not be particularly unrepresentative of the
industry as a whole.

Some methodological problems occur in this type of
financial analysis and it is probably safe to say
that no two experts would proceed in exactly the
same way. The companies themselves use a variety
of different accounting methods which on occasion
makes comparability difficult. Further, most of
the firms are involved in a number of activities
(e.g., house building, income properties) so that
attempts to separate out land development activi-
ties are difficult. It is probably not appropriate
to conduct a long discussion of these problems in
this summary report. One or two of the major
difficulties will be pointed out as we proceed, and
readers interested in a complete discussion of the
financial methodology are referred to Chapter 6 in
the Task Force Research Studies Volume.

Table 9.2 gives some idea of the asset levels of
15 leading firms and land holdings as a percentage
of assets. In some cases, land development is the
primary corporate activity (only Carma is a pure
land developer) while in other cases it is a minor
activity. Cadillac and Genstar, the two largest
companies, are singled out in the total since in
both instances, land development is not their
primary activity and because each is so large.

One problem with these asset figures is that they
are generally historical book values plus carrying
charges. The actual market value of the lands is
much higher today. However, the market value of
income properties is also likely much higher than
book value and thus the percentages of land in
total assets shown in Table 9.3 may not be far off.

Table 9.3 shows pre-tax profits over time for the
fifteen companies. Table 9.4 shows average total
assets during the same years and Table 9.5 divides
profits by assets to obtain profits as a percentage
of assets.

TABLE 9.2

15 Leading Public Real Estate Companies

Total Assets and Land as a % of Total Assets - 1976

($ Millions)

Company	Total Assets	Land Held for Future Development	Percent
Genstar	1,233	256	21
Cadillac Fairview	1,269	229	18
Campeau	546	75	14
Nu-West	365	84	32
Bramalea	343	44	13
Daon	270	54	20
McLaughlin	243	83	34
Markborough	186	84	45
Carma	127	69	54
Costain	111	54	49
Consolidated Building	109	36	33
Sifton	100	11	11
Headway	94	8	9
Monarch	66	31	47
Melcor	62	17	27
15 Company Total	5,124	1,135	22
Cadillac And Genstar	2,502	485	19
13 Company Total	2,622	650	25

SOURCE: Task Force Research Studies Volume,
            Chapter 6.

PRE-TAX PROFITS
($'000)

TABLE 9.3

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Genstar	5,314	11,010	15,731	11,782	20,143	28,581	48,029	68,974	84,556	102,801	
Cadillac Fairview	5,500	7,000	9,500	11,000	10,474	17,176	25,333	28,294	34,229	31,568	
Campeau	1,920	2,157	4,284	5,579	8,362	7,999	10,379	11,288	13,510	8,163	
Nu-West	543	1,700	2,040	1,750	1,690	2,088	6,959	12,341	21,273	21,218	25,868
Bramalea	2,295	3,429	--	(399)	(144)	3,680	7,050	7,357	7,096	13,110	
Daon	70	650	1,577	1,404	1,597	1,834	3,403	6,670	14,106	15,391	21,558
McLaughlin	725	1,000	1,262	454	7,534	9,448	6,588	4,819	7,931	8,336	
Markborough	295	871	2,615	1,427	1,057	2,042	12,376	7,425	8,906	18,109	6,899
Carma	220	482	1,093	717	1,573	4,784	6,090	8,081	14,050	20,622	
Costain	1,737	1,141	1,472	1,555	2,078	2,519	4,255	5,909	6,331	8,191	11,864
Consolidated	70	471	74	832	1,039	2,888	6,701	10,002	4,747	6,546	
Sifton	413	519	852	695	989	1,550	2,478	3,384	4,777	5,500	
Headway	--	--	651	972	1,299	1,772	2,824	2,946	2,271	3,015	
Monarch	941	1,355	1,565	1,655	1,389	2,044	3,351	4,706	5,310	4,604	
Melcor	300	400	619	449	1,123	1,604	2,727	2,254	6,996	8,317	
15 Company Total	20,343	32,185	43,335	39,872	60,203	90,009	148,543	184,450	236,089	275,491	
Cadillac Fairview & Genstar	10,814	18,010	25,231	22,782	30,617	45,757	73,362	97,268	118,785	134,369	
13 Company Total	9,529	14,175	18,104	17,090	29,586	44,252	75,181	87,182	117,304	141,122	

SOURCE: Task Force Research Studies Volume, Chapter 6

TABLE 9.4

AVERAGE ASSETS AT YEAR END
($'000)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Genstar	205,681	261,020	282,260	334,049	385,081	448,661	554,013	655,666	968,726	
Cadillac Fairview	372,890	450,769	505,298	590,455	702,212	773,513	852,031	983,166	1,157,200	
Campeau	82,023	98,623	191,723	284,778	304,538	323,148	378,561	452,143	513,804	424,060
Nu-West	9,451	15,270	23,759	38,560	56,589	77,273	114,221	162,962	276,233	
Bramalea	44,758	56,768	73,094	86,693	107,872	135,903	156,804	230,718	320,279	371,234
Daon	4,800	9,471	19,166	30,603	43,727	68,513	135,034	197,303	240,026	
McLaughlin	8,518	31,269	58,063	75,737	97,231	138,644	198,218	241,579	249,887	
Markborough	47,470	54,827	64,314	72,664	78,201	95,907	122,426	137,990	164,243	195,760
Carma	7,146	9,797	10,825	13,654	19,740	34,056	54,708	84,124	115,398	
Costain	10,112	14,429	20,132	23,811	30,782	55,664	77,006	86,198	101,881	129,511
Consolidated	20,729	20,170	22,047	28,191	36,670	53,402	78,565	96,169	104,988	
Sifton	8,543	13,274	18,077	24,564	34,671	45,997	66,677	88,310	97,177	
Headway	7,000	9,861	13,557	18,107	29,406	50,005	67,097	77,036	88,150	
Monarch	18,364	19,841	22,470	25,307	34,416	48,395	59,937	63,975	65,017	
Melcor	4,000	5,799	6,863	9,100	13,956	24,936	35,520	42,469	54,477	
15 Company Total	851,485	1,071,188	1,331,648	1,656,273	1,975,092	2,374,018	2,950,818	3,599,808	4,517,486	
Cadillac Fairview and Genstar	578,571	711,789	787,558	924,504	1,087,293	1,222,174	1,406,044	1,638,832	2,125,926	
13 Company Total	272,914	359,399	544,090	731,769	887,799	1,151,844	1,544,774	1,960,976	2,391,560	

Source: Task Force Research Studies Volume, Chapter 6.

TABLE 9.5

Pre-Tax Profits as a % of Average Total Assets

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Genstar	4.2	.6.0	4.2	6.0	7.4	10.7	12.4	12.9	10.6	
Cadillac Fairview	1.9	2.1	2.3	1.8	2.4	3.3	3.3	3.5	2.7	
Campeau	2.6	4.3	2.9	2.9	2.6	3.2	3.0	3.0	1.6	
Nu-West	18.0	13.4	7.4	4.4	3.7	12.5	10.8	13.1	7.7	6.1
Bramalea	7.7	-	-	-	3.4	5.2	4.7	3.1	5.5	
Daon	13.5	16.7	7.3	1.8	4.2	5.0	4.9	6.1	6.4	5.8
McLaughlin	11.7	4.0	0.8	9.9	9.7	4.8	2.4	4.0	3.3	
Markborough	1.8	4.8	2.2	1.5	2.6	12.9	6.1	3.7	11.0	3.5
Carma	6.7	11.2	6.6	11.5	24.2	17.9	14.8	16.7	17.9	
Costain	11.3	10.2	7.7	8.7	8.2	7.6	7.7	7.3	8.0	9.2
Consolidated	2.3	0.3	3.8	3.9	7.9	12.5	12.7	5.5	6.2	
Sifton	6.1	6.4	3.8	4.0	4.5	5.4	5.1	5.4	3.1	
Headway	-	6.6	7.2	7.2	6.0	5.6	4.4	2.9	3.4	
Monarch	7.4	7.9	7.4	5.5	5.9	6.9	7.9	8.3	7.1	
Melcor	1.0	10.7	6.5	12.3	11.4	10.9	6.3	16.5	15.3	
15 Company Total	3.8	4.1	3.0	3.6	4.6	6.3	6.6	6.6	6.1	
Cadillac Fairview and Genstar	3.1	3.5	2.9	3.3	4.2	6.0	6.9	7.3	6.3	
13 Company Total	5.2	5.0	3.1	4.0	5.1	6.5	5.6	6.0	5.9	

SOURCE: Task Force Research Studies Volume, Chapter 6.

Several brief comments on these figures should be made. The percentage profit figures are distorted due to the difference between market and book value of assets. On the one hand, the low book values used in the calculations here create an upward bias in profit rates. On the other hand, the profit figures do not reflect unrealized profits that equal the difference between market and book value of assets.

Table 9.6 gives the return on equity for the 15 companies. It is clear that these returns are substantially higher than returns on total assets given in the preceding table. This is the simple result of two factors. First, most of these companies are highly leveraged. The average figure in 1976 was equity equal to only 14% of total assets. This is down from a high of 24% in 1969. Second, the total return to capital or assets has been higher than debt servicing charges during this time period.

C. The Inventory Replacement Issue and the Financing of Raw Land

The land development industry has frequently argued that high profits from completed developments are "necessary" in order to finance new raw land purchases to replenish their inventories. This message came through repeatedly in the Peat, Marwick report to the Task Force. The basic idea seems to be that while the "boom" years brought record revenues and profits, it also brought record prices for raw land and thus most of the profits had to be reinvested simply to stay in business.

The Task Force does not support this argument. The reason we reject it is that it appears to confuse cause and effect. Basically, raw land prices are high because developers are willing to bid high in expectations of future profits. We do not believe that developers would be willing to bid high if they did not expect to still make a profit at those high prices. Thus, high prices for raw land are caused by high levels of past profits and the corresponding expectations of future profits. If past profits and expectations of future profits were lower, competitive bids would be lower and hence raw land prices would be lower. Thus the argument that profits have to be high in order to afford high raw land prices is backwards. We would argue that raw land prices are high precisely because expected future residential land values are high.

TABLE 9.6

Pre-Tax Profits As A % of Average Shareholders Equity

	1968	1969	1970	1971	1972	1973	1974	1975	1976
Genstar	13.2	16.4	10.5	16.3	21.7	30.7	36.4	36.3	35.5
Cadillac	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	24.7	26.5	21.4
Campeau	22.2	24.6	12.4	12.5	14.2	20.4	21.6	21.4	14.5
Nu-West	108.6	51.0	26.9	22.1	21.9	52.8	62.7	70.5	48.8
Bramalea	24.0	—			16.6	27.5	26.3	26.2	45.5
Daon	176.0	104.7	49.7	44.3	34.7	45.3	62.2	87.3	68.5
McLaughlin	66.7	33.0	8.0	87.7	65.0	30.0	17.3	25.5	30.2
Markborough	4.6	13.4	7.0	5.1	9.0	45.4	23.0	24.6	42.4
Carma	38.2	66.2	34.1	60.1	89.6	64.9	63.2	74.0	73.2
Costain	41.0	40.7	33.6	40.1	41.9	58.3	63.5	53.6	54.2
Consolidated	21.2	3.3	40.0	43.9	86.0	83.4	70.7	27.8	30.1
Sifton	58.1	39.5	19.7	24.4	33.0	46.6	48.6	36.5	52.6
Headway	—	57.0	42.0	35.0	38.0	42.1	33.0	22.2	26.2
Monarch	23.0	25.0	24.6	18.4	24.0	31.5	35.2	33.8	25.3
Melcor	14.8	21.3	14.3	32.0	67.2	45.0	37.0	85.0	62.0
15 Company Total	22.0	24.0	17.1	21.5	30.1	41.7	33.7	36.6	35.5
Cadillac and Genstar							32.0	32.8	30.8
13 Company Total	22.5	21.4	13.7	17.8	26.4	37.7	36.0	41.8	41.8

SOURCE: Task Force Research Studies Volume, Chapter 6.

Spokesmen for real estate developers describe their industry as "more the victims than the cause of high land prices".(1) They, and many others unconnected with the industry, believe over-regulation of the residential land development process by governments has been the fundamental cause of high and rising land prices, which in turn lead to high and rising home or apartment prices. This view was forcefully presented to the Government of Ontario over five years ago,(2) and has come to be voiced with increasing emphasis by the industry, particularly in reaction to accusations that land prices have been driven up by conspiracy or monopoly among land developers.

A. Regulation and Land Values

The argument that excessive government regulation is the cause of high land prices is difficult to appraise, not because the facts are particularly ambiguous, but because the appropriate interpretation to place on the facts is complex. Without a doubt, government regulations that reduce the amount (or the building density) of developed residential land lead to higher-than-otherwise prices for land that does get approved for development. Land that does not get through the regulatory sieve is lower in price than it would otherwise be. Examples abound of this extra amount, an "approvals increment", that the market adds to the price of land approved-for-development, or to the price of land for which additional building density has been permitted.

In one study, conducted for the Task Force and reported on in our forthcoming Research Studies Volume, Chapter 10, the effect on property values of a rezoning in Vancouver that permitted medium-density apartment development over part of a low-density residential neighbourhood was examined. This land, in the Kerrisdale area of southwest Vancouver, was rezoned in July, 1961. Lots that were rezoned subsequently sold for roughly one-third more (the actual increase varied with the size of the lot, among other things) than they had

(1) J. Richard Shiff, "President's Report", Report of the Canadian Institute of Public Real Estate Companies, 1977, p. 4. In a recent speech, Mr. Shiff bluntly suggested; "The real estate development industry, especially in the east, is enmeshed in an Alice-in-Wonderland maze of red tape. The inevitable result is a 50% addition to the cost of a housing lot ...," Address to a CIPREC luncheon, Vancouver, November 17, 1977.
(2) Residential Land Development in Ontario, prepared for the Urban Development Institute of Ontario by A. Derkowski, November, 1972.

before the rezoning. During the same period of time, lots nearby that had not been rezoned, and other lots in a "control group", actually declined in market price.(1)

The large "approvals increment" accruing in recent years to land around Winnipeg has been calculated by Professor R. C. Bellan in his recent Winnipeg land-price report.(2) Some of his figures are reproduced in Table 10.1, which shows in the righthand column the difference between the market value of serviced land per acre, for each of several years, and the cost (including the foregone agricultural value of the land) of developing the land.

If land-development approvals were automatic and instantaneous, and if the development industry was sufficiently competitive, differences of this sort, between the selling price of newly serviced land and the cost to developers of providing the land, could not persist. If market value were to rise above production costs temporarily, the excess profit to be made by producing and selling serviced land would induce developers to bring more serviced land into the market, thereby bringing down the selling price until price and costs again coincided. Since, as we argue elsewhere, lack of industry competitiveness or openness does not seem to be a problem, government regulation must, in some ultimate way, be the cause of newly serviced land prices that exceed the market cost of producing such serviced land.

This does not imply that in the absence of restrictive government regulations, residential land throughout the urban area would have a market price equal to the agricultural value of the land plus servicing costs. Each land site is unique and will have a market value that depends on a number

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(1) In his Ph.D. thesis, Stuart B. Proudfoot calculated that the market value of land in two Toronto residential areas rezoned to permit high-rise apartments rose by about 70 percent in one case and 150 percent in the other, as a result of the rezoning. See High-Rise and Neighbourhood Change: The Politics of Development in Toronto. (Ph.D. Thesis, University of Michigan, 1977.)

(2) Ruben C. Bellan: Report and Recommendations of the Winnipeg Land Prices Inquiry Commission.

(Manitoba Queen's Printer, July 18, 1977), p.47.

TABLE 10.1

Land-Value Gains to Serviced Residential Land
in Winnipeg, 1972-76

(1) Year	(2) Value of Serviced Land per Acre	(3) Value as Farm Land per Acre	(4) Servicing and Other Costs per Acre	(5) Gain in Value per Acre (2) - (3)-(4)
1972	$ 23,800	$ 150	$ 21,100	$ 2,550
1973	29,200	200	21,100	7,900
1974	45,500	300	26,700	18,500
1975	59,900	400	37,000	22,500
1976	74,000	500	39,500	34,000

SOURCE: Ruben C. Bellan: Report and Recommendations
of the Winnipeg Land Prices Inquiry Commission.
(Manitoba Queen's Printer, July 18, 1977),
p. 47.

of factors, including its accessibility within the urban area and the general quality of its immediate environment. Some sites will command premium prices because they are better located and in other ways more popular than other sites. However, if development approvals were unrestricted, we would expect the market value of all residential land, including land to which locational premiums are attached, to be lower than it would otherwise be. (1)

B. The Planning Issue

To accept that government planning regulations tend to raise the price of residential land is not to judge whether their impact is good or bad. The residential subdivision and building approvals process is not simply the purposeless exercise of bureaucratic control. The apparent formalism of the approvals process tends to obscure the overall municipal and regional planning framework within which it is embedded. The fundamental question is not why subdivision approvals sometimes take three or four, or more, years to complete, but why we should regulate residential land development at all. By and large, there is plenty of land to build on. For example, Professor R. A. Muller notes in his recent Ontario Economic Council study on new housing in the Metropolitan Toronto area(2) that within the Toronto Census Metropolitan Area alone, there are almost 700,000 acres of vacant land. This is about four-and-one-half times the total 240 square miles of Metropolitan Toronto and could theoretically accommodate another nine million people, if Metro Toronto's land-use pattern and residential densities were to be reproduced over the whole of the Census Metropolitan Area. What would happen if the development of this land were completely unregulated?

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(1) There are two basic reasons for expecting land values to decline if government regulation were suddenly abolished. The first is that land supply would undoubtedly increase, which would lead directly to lower prices all around. The second is that land development without regulation may well be less efficient, with the result that urban property taxes may rise (to pay for expensive servicing of the inefficient development) or the environment may deteriorate, both of which would reduce the demand and price of land. These matters are discussed in greater detail in Chapter 3 of our forthcoming Research Studies Volume.

(2) Op. cit. p. 62

Government land-use planning is based, in effect, on the premise that an unregulated private market would lead to high public costs and environmental damage. In other words, development costs perceived by the private sector do not correspond to the real social costs of development. "Leapfrog" development patterns, untreated sewage, expensive transportation systems and various other harmful environmental effects all involve costs that are widespread and not borne completely by the developers or the ultimate users of newly developed land. Private development would be slower and more orderly if the full, social costs of land development were taken into account. Since these costs are not taken into account by the private sector, government regulation is needed to encourage a pattern of development that is efficient, and that would indeed emerge _if_ private developers or ultimate users had to meet the _full_ costs of development.(1) In an ideal planning system, the "approvals increment" that we observe would simply be a measure of the difference between full costs and private costs; it serves to bring the final price of land up to its full scarcity value.

There are obviously many slips between this idealized planning concept and planning practice. To attempt an evaluation of the actual application of these planning principles would go beyond our terms of reference, and take more resources than we have available. Ultimately, we must content ourselves with specific comments on some of the more obvious problems associated with government land-use planning. The point to be emphasized, however, is that the approvals process _per se_ is simply an administrative way of getting a handle on the very complex elements involved in regional and municipal planning; it provides a formal framework within which a host of issues, including environmental and social concerns, may be at least

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(1) Robert Cournoyer, Research Director in the Quebec Ministry of Municipal Affairs, made a similar point in replying to the view that low serviced land costs in Montreal were a desirable consequence of a virtually unregulated development process. He noted that "In the absence of a coherent planning process, (provincial housing unit grants) cost two, three or five times what (they) should ... In the absence of land development controls, cost to the individual is lower, but the collective cost, including the cost that the province has to assume, may be as high (as Toronto), or even higher;" Canadian Council on Social Development, Urban Land Symposia Proceedings (Ottawa, 1977), pp.120-1.

discussed, even if not always dealt with well or wisely.(1)

C. Length of the Approvals Process Versus Restrictiveness

Whether for better or for worse, planning restrictions serve to reduce the amount of residential land that is developed over any given period of time. This outcome seems unambiguous, and it has the unambiguous result of increasing the market value of land and of housing. Frequently, however, the focus of criticism of the planning process is not on this fundamental restrictiveness but rather on the length of time that it takes to get planning approval for development. Although the concepts of length and restrictiveness are related - complete restriction of development in some region could be equated with an indefinitely long approval - a purely lengthy approvals process would have some definite length of time between an application for subdivision or by-law amendment and its approval, a length of time determined by administrative needs. Whatever private applications were made would be approved within the normal time requirements of the administrative process. Restrictiveness flows from the exigencies of planning, and relates to tions on the areas appropriate for development, and to the appropriate timing of development; the length, per se, of the approvals process is a matter of administration, not planning.

In our view, the length of the approvals process, as opposed to its restrictiveness, has very little influence on the price of housing, although, as we suggest below, it may have some short-run effect on land price. In the final analysis, whether the approvals process takes two years or three years is not going to alter very much the real cost of producing serviced residential land, and it is not, therefore, going to affect significantly the supply of developed land or the price of housing.

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(1) A classic example of the difficulty of considering regional plans in the abstract, i.e., unrelated to specific infrastructural schemes or development proposals, is provided by Ontario's Toronto-Centred Region Plan. Although this plan sought in general to constrain development north of Toronto, a detailed consideration of sewage-disposal needs of the area led to the development of a major trunk sewer north and east of Metro Toronto that will be able to service efficiently a much larger population to the north than TCR initially envisaged.

A longer approvals process will, of course, add
somewhat to the cost of developing land. A longer
process may add to the uncertainty over the final
market price of the serviced land, and the average
return to capital in the development industry may
rise marginally as a consequence. There would be
as well additional carrying costs on the land.
But these additional costs as a proportion of final
cost are small even for increases of a year or more
in the length taken in approving private develop-
ment applications, and the industry should be able
to adjust, with little difficulty, to any change in
the average time a typical application takes to get
approved. It cannot adjust, however, to a restric-
tive process that denies or excessively delays some
approvals. This, of course, is precisely what
planned development entails.

D. Approvals Process in
    the Short Run

Although the length of the approvals process is not
likely to have much effect on the long-run supply
of serviced residential land or on the price of
dwelling units, it may, over short periods of time,
significantly influence the price of approved
building lots. Influence of this sort may be
observed in the behaviour of lot prices during the
rapid dwelling-unit price inflation between 1972
and 1975, as the data in Table 10.2 help show.

It will be recalled from our earlier discussions in
this report that over short periods, the price of
dwelling units is determined very largely by the
supply of and demand for existing units, and that
this price is of overwhelming importance in
establishing the price of vacant land. In the
period between 1972 and 1975, residential proper-
ties were being revalued upwards in the market, as
buyers became willing to pay much more for houses
and building lots, and sellers were willing to sell
only for higher prices. As we demonstrated in
Chapter 3, lot prices in a period such as this with
house-price increases outpacing servicing and
building costs, would normally be expected to rise
proportionately faster than house prices.

The data for the cities shown in Table 10.2 basic-
ally support this expectation. By 1975, the index
for lot prices averaged over 20 Census Metropolitan
Areas was well ahead of the index for MLS house
prices (where, for both indexes, 1971 prices are
set equal to 100); and it was ahead as well for
most of the cities shown separately in the table.

However, if the figures in Table 10.2 are looked at
closely, it will be noticed that for all of the
cities shown except Winnipeg, the index for lot
prices is behind the MLS index for at least one of

TABLE 10.2

Indexes of House and Lot Prices, Selected Cities, 1971-1975

	1971	1972	1973	1974	1975
Halifax					
MLS Transactions	100.0	104.6	111.2	130.3	151.4
Fully Serviced Lots	100.00	110.3	85.3	96.5	127.9
Montreal					
MLS Transactions	100.0	105.6	111.4	140.8	149.7
Fully Serviced Lots	100.0	78.9	71.5	68.0	116.9
Toronto					
MLS Transactions	100.0	107.1	138.6	176.4	182.8
Fully Serviced Lots	100.0	99.7	120.1	192.0	203.5
Winnipeg					
MLS Transactions	100.0	106.1	116.9	149.7	181.6
Fully Serviced Lots	100.0	112.3	139.2	224.0	286.2
Regina					
MLS Transactions	100.0	103.9	122.5	160.0	206.9
Fully Serviced Lots	100.0	103.8	116.4	129.5	187.6
Calgary					
MLS Transactions	100.0	107.3	132.2	169.7	217.6
Fully Serviced Lots	100.0	112.1	131.6	167.7	227.0
Edmonton					
MLS Transactions	100.0	104.2	121.2	147.8	187.0
Fully Serviced Lots	100.0	102.5	122.2	150.1	205.0
Vancouver					
MLS Transactions	100.0	118.9	156.8	218.6	243.5
Fully Serviced Lots	100.0	108.1	134.3	231.0	247.6
Twenty-CMA Average*					
MLS Transactions	100.0	108.8	126.2	158.0	173.7
Fully Serviced Lots	100.0	109.5	128.2	168.9	206.2

* These are unweighted averages of the indexes of the following Census
Metropolitan Areas: Vancouver, Victoria, Calgary, Edmonton, Regina,
Saskatoon, Winnipeg, Toronto, Hamilton, Ottawa, London, Kitchener,
Windsor, St. Catharines, Sudbury, Thunder Bay, Montreal, Quebec, City,
Halifax and Saint John.

SOURCES: 1. "MLS Transactions"; original data from The Canadian Real Estate
Association. Multiple Listing Service Annual Report 1976.
2. "Fully Serviced Lots"; original data from Central Mortgage and
Housing Corporation. (These indexes refer to the average cost per
frontage foot of fully paid, fully serviced lots for new housing
financed under the National Housing Act).

the years after 1971. For the twenty-CMA average, the lot-price index and the MLS index were almost the same for 1972 and 1973; but by 1974 and 1975, the lot-price index had moved strongly ahead. There is, in short, strong evidence of a lag of lot prices behind house prices in many Canadian cities during the post-1971 price boom, especially in the larger cities.

From our discussions with developers and officials in various cities, it appears as if this lag in the escalation of lot prices was the result of either the existence of a good stock of already approved residential land at the beginning of the rapid inflationary period, or the readiness of officials to speed up the approvals process, at least in the short run. As stocks were depleted, or as developers became concerned about the long-run availability of new lots, the price of approved land rose and increasingly came to reflect the final price of dwellings. The initial availability of stocks, or quick approval of new applications, served to buffer the lot-price increase. Owners of approved lots gradually came to raise their prices, not at the first sign of house-price increases but only as their stocks became depleted, or as they became concerned about replenishing them.

The changing lot prices during this period served only to determine who benefited from the rising house prices; it did not independently cause the house-price increase. Before lot prices were adjusted upwards, builders and new-home buyers gained by buying at low prices. As lot prices rose independent builders had their profits reduced while the larger land holders and owners of raw land benefited from the real estate boom.

The Contrasting Examples of Winnipeg and Regina

The contrast between Winnipeg and Regina helps illustrate the moderating effect on lot prices of larger supplies of approved land. In Winnipeg, as many commentators have noted, the creation in 1972 of a single large "unicity" from the previously federated municipalities brought the subdivision approvals process in that year to a virtual halt. This, in conjunction with higher servicing standards and a heightened concern with sprawling residential development, tightened up the supply of building lots right at the beginning of the inflationary period, thus ensuring that lot-price increases would immediately reflect the greater demand for real property. As shown in Table 10.2 the Winnipeg lot-price index moved above the house-price indexes in 1972 and remained above for the whole of the period.

In Regina, by contrast, city officials responded quickly to the increased demand for building lots by approving more land for development.

This official attempt to maintain an adequate supply of approved lots had the effect of keeping the rate of price increase for those lots below the rate of house-price increases through to 1975.

The experience of many other cities fell between these examples of Winnipeg and Regina. Approval delays in the mid-seventies in both Calgary and Edmonton resulted in more pressure being put on the existing stock of approved land. Building-lot price increases followed house-price increases with only a moderage lag. In Toronto, house prices started a dramatic upward climb in 1973; lot prices followed in 1974, a year in which, as Table 10.3 shows, the number of final approvals given to sub-division applications across Ontario was especially low, possibly because three new regional governments were initiated in that year. Within the Toronto Census Metropolitan Area, the number of subdivision lots registered in 1974 was only four-fifths of the number registered in 1973, and first-half data suggest a further reduction in 1975.(1)

F. The Importance of Planning Restrictions

If all municipalities had been able to respond to the rising demand for houses and building lots by quickly expanding the number of lots approved for development, as did Regina, then widespread increases in lot prices would undoubtedly have been delayed, as it was in Regina. It is in this sense that, over short periods, shortening or lengthening the time taken to process subdivision applications affects lot prices. But over longer periods, it is only changes in the restrictiveness of the subdivision process, relative to housing demand, that will affect lot prices. To lower the

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(1) R. A. Muller: The Market for New Housing in the Metropolitan Toronto Area. Ontario Economic Council, Spring, 1978, Chapter 3, Table 13.

TABLE 10.3

Subdivision Applications and Approvals in Ontario, 1960-77

| Year | New Applications | Final Approvals | Ratio of Approvals to Applications | | |
			No Lag	1-year lag	2-year lag
1976	787	521	66.2%	53.3	42.6%
1975	978	596	60.9	48.7	47.4
1974	1223	411	33.6	32.7	39.1
1973	1258	662	52.6	63.0	81.0
1972	1050	478	45.5	58.5	53.0
1971	817	541	66.2	60.0	54.8
1970	902	444	49.2	44.9	52.4
1969	988	560	56.7	66.1	66.1
1968	847	509	60.1	64.8	64.8
1967	785	456	58.1	60.9	70.8
1966	749	434	57.9	67.4	73.1
1965	644	435	67.5	73.2	80.9
1964	594	488	82.1	90.7	91.9
1963	538	484	90.0	91.1	72.1
1962	531	570	107.3	84.9	66.4
1961	671	633	94.3	73.7	
1960	859	815	94.9		

Note: The ratio of approvals to applications was calculated in three
ways: 1) with no lag, in which approvals in each year were
compared to applications in the same year; 2) with a 1-year lag,
in which approvals in each year were compared to applications
during the previous year; and 3) with a 2-year lag, in which
approvals in each year were compared to applications two years
earlier.

SOURCE: Task Force Research Studies Volume,
Chapter 10.

price of subdivision land permanently, in the face
of higher demand, it is necessary permanently to
increase the rate at which lots are approved, to
become less restrictive in other words. However,
there has emerged during the last six or seven
years a concern over environmental issues, settle-
ment patterns and servicing standards that may give
rise in the future to increasingly restrictive land
regulations and development approvals. Some of
these broad planning elements underlay the lot-
supply shortage of a few years ago.

For example, Winnipeg Council in 1973, after the
creation of a unified City of Winnipeg, formulated
policy guidelines stipulating that urban expansion
would be allowed only on land contiguous with the
already built-up areas.(1) No "leapfrogging"
over vacant land is permitted by this policy. A
somewhat similar policy of sequential development
was recently announced in Calgary, along with pro-
posals that would limit residential growth to
designated transportation corridors.

In a number of cities, provincial plans for a
surrounding utility or "green belt" froze sub-
division approvals in those belts and, at least in
Calgary and Edmonton, led to considerable uncertain-
ty among land holders about the extent to which
future development beyond these belts would be
permitted. This uncertainty has helped fuel the
lot-price increase in recent years, since sellers
of approved lots have less confidence that new,
developable land will be readily available.

Along with the widespread applications to regional
planning of concepts such as sequential or contig-
uous development and green-belt barriers, higher
urban servicing standards are frequently being
insisted upon. We discuss elsewhere in this Report
the problems of excessively high or mistaken
standards. Here we are referring to standards that
might be fully justified by any reasonable criteria.
Ontario has held up residential development north
of Toronto until adequate sewage mains into Lake
Ontario can be made available; the expansion of
upstream sewage treatment was halted in the mid-
sixties. Calgary has frozen the development of
over three thousand acres to the south because of
inadequate transportation servicing. These, and
similar examples elsewhere, all involve legitimate
concerns that clearly have to be handled in some
part of the regional planning process. At this

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(1) See the Report and Recommendations of the
Winnipeg Land Prices Inquiry Commission, p. 31.

stage of their application, they and other "softer" environmental and social concerns, all tend to restrict the rate of subdivision approvals.(1)

The restrictive force of these various planning matters has yet to be fully realized. Some hint of this restrictiveness emerges from the data of Table 10.3 which seems to show a general fall over time in the ratio of final approvals to new subdivision applications across Ontario, whether the ratio is measured with or without the assumption of an approvals lag. But these Ontario data are difficult to interpret (partly because they relate not to building lots but to whole subdivision applications) and suggest only inadequately the emerging problem.

G. Some Conclusions

Central to this problem is the simple fact that governments can decide which land is forbidden to development, and development will not occur there; but they cannot ensure that development will take place on land that is open for development. As a result, there may be no immediate economic interest by private or public sector land owners in developing approval land, or in applying for subdivision approval in acceptable, "contiguous" areas. The government may establish broad development concepts, provide mainline sewage and water facilities, and ensure that the area has good accessibility, but the economic reality decides development timing.(2)

The major land-development problem for provinces and municipalities in coming years may well be that private and public sector developers with their diverse expectations and incentives, will not, or financially cannot develop, urban areas in the nice sequential way, over time and over space, that

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(1) The increasing complexity in Ontario that these concerns have added to the approvals process is discussed in Chapter 12 of the Report of the Planning Act Review Committee. (Toronto, April,1977)

(2) The way in which the private market determines development timing is described by Professor D. M. Nowlan in his article on "The Land Market: How it Works", in Public Property? (The Fraser Institute, 1977.) He points out in this article, that even in the highly developed commercial core of Toronto, only a little over ten percent of all commercial properties were developed in 1976 up to their maximum allowable floor area, and over one-half the properties had less than twenty percent of the building area that they were legally permitted to have.

planners think is appropriate. This could lead to
a paradox of land shortages in the midst of plenty,
and to an increasingly restrictive approvals
process, in spite of the best government intentions.
Both the appropriateness of the planning goals, and
the possibility of developing new policy instru-
ments to encourage desired development - fiscal
instruments come immediately to mind - should be
high on our land-issue agenda.

A. Fiscal Impact of New
Development

Restrictions that reduce the supply of building lots below "free market" levels arise from a wide variety of sources. A new and apparently increasingly common type of supply restriction will form the subject of the present chapter. This restriction will be referred to as "municipal resistance to development", defined as a negative stance toward new residential development by municipal corporations on the grounds that new development is fiscally unattractive. A term widely used in this regard is "fiscal impact" which may be defined as the difference between municipal revenues and costs caused by residential growth. If increased municipal revenues exceed costs the fiscal impact is said to be positive. Conversely, the fiscal impact is said to be negative if increased municipal costs exceed revenues.

The term "municipal resistance" is fairly new and not surprisingly it is currently used in a number of different ways. Our use of the term to refer only to resistance based on negative fiscal impact is based on section C(iv) of our terms of reference. The other principal way the term has been used is to refer to resistance by ratepayers groups on various grounds such as "environmental preservation". Based on section C(v) of our terms of reference, we shall refer to this quite separate type of resistance to development as "citizen resistance" (also arbitrarily) and consider it in detail in the next chapter.

Municipal corporations which conclude that new residential development will create a negative fiscal impact on their communities, have several alternative courses of action. (A) Municipalities may accept these fiscal deficits as a fact of life and not worry about their impact on taxes paid by existing residents. (B) Municipalities may accept residential growth but require it to pay its own way. Residential land developers may be required to make special lump-sum payments approximating the present value of the future deficits associated with the developments. (C) Municipalities may limit the amount of residential development they will allow. They may slow down the pace of residential development and/or restrict the total amount of residential development permitted within their boundaries. (D) Municipalities may restrict the construction of housing types considered to have the largest deficits. The consensus is that large single-detached houses and small apartments generate smaller deficits than modest cost family accommodations such as town-houses.

Municipal resistance, of course, only occurs in the last three cases but we should also note that each

of these last three have different implications for the land market. Neither the supply nor the price of residential land are affected by response (A). Under response (B), the potential supply of residential land is not affected but development costs are now higher. As discussed in a subsequent chapter on taxation, not all of this cost is likely to be passed on in higher serviced lot prices. Some of it is likely to come out of development corporation profits and some is very likely to be absorbed by farmers in terms of lower raw land prices in the long run. Response (C) reduces the supply of serviced residential land and increases its price. Response (D) tends to modify the price structure - land for smaller apartment units and larger single-detached houses is more available and cheaper. Land for modest-priced family-type accommodation is less available and more expensive.

Measuring fiscal impact is a difficult matter simply because there exists no general agreement as to how various costs and revenues should be allocated. For example, should operating costs attributed to residential development include or exclude costs of providing services to the non-residential sector? Should some of the costs of existing infrastructure in the municipality be allocated to new development if the infrastructure has excess capacity? The problem is complex and interested readers are referred to the Task Force Research Studies Volume, Chapter 11 for a detailed discussion and a proposed methodology.

Nine existing studies of the fiscal impact of residential and non-residential development in Canada were examined. Four of these studies were done in Ontario, one each in Quebec and Alberta, and two in British Columbia. One United States study is also shown for comparison. The results of these studies are shown in the accompanying Table 11.1 and detailed explanations of the ratios shown are presented in the appendix to this chapter. Ratios in excess of 1 in Table 11.1 indicate a positive fiscal impact while ratios less than 1 indicate a negative fiscal impact.

In total, the findings of these studies can be summarized as follows. First, residential development may or may not produce a fiscal deficit for municipalities. However, the majority of studies considered do conclude that residential developments generate more in municipal costs than in revenues. Second, if residential development does generate a fiscal deficit, the size of this deficit ranges widely between municipalities. Thirdly, the fiscal impact of residential development differs

TABLE 11.1

REVENUE/COST RATIOS BY TYPE OF DEVELOPMENT
SELECTED STUDIES*

Study	Single- Detached Family	Two- Family	Town- House	Apartment — Walkup	Apartment — Highrise	Apartment — Un-Specified	All Residential	Commercial and/or Industrial
CANADA								
City of Laval	0.92							
Town of Burlington	0.68		0.50	0.66	1.19– 1.27–		0.80	3.74
City of Burlington								
#1	0.95	0.66	0.55		0.70			
#2	1.24	0.95	0.84		0.99			
#3	0.95	0.80	0.67		0.85			
#4	0.67	0.56	0.47		0.59			
#5	0.78	0.66	0.55		0.69			
Town of Markham								
#1	1.09							
#2	0.88							
#3	1.02							
Town of Oakville								
#1							0.70– 0.71–	
#2							0.94– 0.95–	
#3							0.56– 0.67–	
#4							0.88– 1.03	
City of Oshawa								
#1	0.31– 0.56–	0.10– 0.40–				0.28– 3.51–		
#2	0.75– 1.02–	0.36– 0.74–				0.59– 1.58–		
#3	0.48– 0.72	0.18– 0.56				0.42– 1.95		

TABLE 11.1 (continued)

RESIDENTIAL

Study	Single-Detached	Two-Family	Town-House	Apartment		Un-Specified	All Residential	Commercial and/or Industrial
				Walkup	Highrise			
City of Calgary								
#1	0.86				14.17			
#2	0.95				1.25			
#3	0.90				2.31			
Township of Richmond	0.73		0.70			0.71–1.33		
District of Surrey								
#1	0.41–0.84					0.76–0.98		1.39
#2	1.12–2.37					1.34–2.00		7.03–12.58
United States								
Muller-Dawson	0.74		0.67			0.84		3.72

* See Appendix for a description of these ratios.
Revenue/cost ratios are not comparable between studies.

SOURCE: Task Force Research Studies Volume, Chapter 11.

according to housing types. Single-detached units and apartments generally have the smallest deficit (or largest surplus). Fourthly, commercial and industrial developments generally yield more in municipal revenues than in costs. This was true in every case shown in Table 11.1: the Town of Burlington study, the District of Surrey studies, and the Muller-Dawson study for the United States.

B. The Structure of the Property Tax

If we accept these findings, there remains the problem of pinpointing their causes. Since the property tax is the principal revenue source in most municipalities, we might first look at that tax.

It appears from our research that the major reason why residential growth by itself is financially unattractive to municipalities is that the effective property tax levied on residential property is usually much lower than the tax on industrial and commercial property. Effective property tax rates are defined as property taxes as a percentage of the market value of property. Variations in effective tax rates between classes of property can be caused by (A) differences in the assessed/market value ratio and (B) differences in nominal tax rates (usually expressed in terms of mills). If effective tax rates are higher on non-residential than on residential property it means that residential development is less attractive from a revenue standpoint than if uniform rates were applied. If we add to this the fact that a residential development is less attractive from a cost standpoint than a commercial or industrial development of the same value, it is easy to understand the origins of negative fiscal impact. The following figures illustrate the bias in the property tax in two selected areas caused by the underassessment of residential property.

| | Assessed/Market Value Ratio, 1975 | |
Type of Property	City of Toronto	Borough of Scarborough
	Percent	
Residences	8.6	8.8
Commercial	14.9	12.5
Industrial	28.6	16.4

| | Assessed/Market Value Ratio,1975 | |
Type of Property	City of Vancouver	District of Delta
	Percent	
Residential	12.8	18.9
Multi-family	25.4	23.6
Commercial	35.1	3.6
Industrial	38.1	33.3
All Classes	15.9	15.6

Source: Task Force Research Studies Volume,
          Chapter 11.

It is extremely important to note here that nega-
tive fiscal impact from residential properties has
little to do with new development per se. The
above arguments suggest that existing residential
developments may also have or once had a negative
fiscal impact on municipalities. Alternatively, it
seems to suggest that existing residential rate-
payers are currently being subsidized by existing
commercial and industrial ratepayers. Municipal
corporations, of course, represent existing rate-
payers and not potential new residents. Thus there
is no incentive to change the overall property tax
structure in order to make new residential develop-
ment pay its way since this would be harmful to
existing residents.

C.   Balanced Growth and
     Expected Fiscal Impact

An important fact that we have ignored up to this
point is that for a metropolitan area as a whole,
residential growth occurs simultaneously with
industrial and commercial growth. Thus if metro-
politan areas were composed of a single fiscal unit
there might be no issue here at all since the
negative fiscal impact of residential growth would
be offset by the positive fiscal impact of indus-
trial and commercial growth. But many larger
metropolitan areas are fragmented into a number of
municipalities. Quite clearly in our view munici-
palities experiencing only residential growth are
going to be much more concerned about its financial
impact than municipalities having significant non-
residential growth as well. If municipal boundaries
are large enough to encompass an area's employment
and housing growth the negative fiscal impact of
residential growth should not be too great a
problem since it is counterbalanced by the favour-
able fiscal impact of non-residential growth.

One could expect, therefore, that fiscal impact of residential development is of major concern in areas having a fragmented municipal government structure - where employment growth is centred in some municipalities (typically the central city) and housing growth in others. The closer municipal boundaries are coterminous with an area's economic boundaries (defined here as the census metropolitan area) the less worry there should be about the financial consequences of residential growth.

While current data are not available on employment growth by municipality within census metropolitan areas it is reasonable to assume that much of this growth occurs in the central city. In Calgary, Saskatoon, Regina and Winnipeg all of the residential growth was in the central city - that is the municipal boundaries coincided with the census metropolitan area boundaries. In Thunder Bay, Edmonton and London most of the housing growth was in the central city. Other factors being equal, the municipalities in these seven areas should not be nearly as worried about negative fiscal impact as those in areas at the other end of the spectrum. These latter areas include fringe municipalities around Toronto, Montreal, Quebec City, Ottawa and Vancouver.

A number of other political factors that also help determine fiscal impact should also be noted. The first has been the implementation of regional governments in several parts of Ontario and Quebec. If these regions have higher employment/population ratios than some of the residential communities they contain, regional government may help to relieve the negative fiscal impact on the latter. Second, provincial grants can help offset the negative impact of residential development.

We can now summarize this chapter in the following points. First, negative fiscal impact from new residential development seems to be a genuine problem in municipalities that are largely residential, or where growth is largely residential. The municipalities that best fit this description are the growth municipalities around Montreal, Toronto and Vancouver. Second, the root of the problem lies in a combination both of political fragmentation and of a property tax in virtually all municipalities which undertaxes all residential properties and overtaxes commercial and industrial properties relative to their respective uses of public services. Thus it is not new development per se that causes the problem but rather the structure of the property tax.

Description of Revenue/ Cost Ratios	The revenue/cost ratios included in Table 11.1 were based on information contained in the following studies. Each of the ratios are briefly described below.
City of Laval Study	This study which was published in 1974 estimated the financial impact of constructing 25 single-detached houses in the City of Laval, Quebec.
Town of Burlington Study	This study undertaken in 1966 estimated revenues and costs relating to 24 recent developments in the Town (now City) of Burlington, Ontario. Average revenues and costs are summarized for single-detached, townhouse, walkup apartments, and high-rise apartments of 5-7 and 7 storeys, respectively. In addition revenues and costs of providing services for the entire town in 1966 are split between all residential and farm property and commercial and industrial property.
City of Burlington Study	This 1977 study examined the financial impact of recent residential growth in the City of Burlington and proposed residential development in the Brant Hills community. While both operating and capital revenues and costs are considered in the study, the ratios in Table 11.1 relate only to operating revenues and costs.
	Five different revenue/cost ratios are included in Table 11.1 for each of four housing types: #1 - revenues and costs for recent residential growth for the City, Regional Municipality of Halton and school boards combined; #2 - same as #1 except a pro rata share of taxes from recent commercial and industrial in the City are included; #3 - revenues and costs to the City from proposed residential development; #4 - same as #3 except for Regional Municipality of Halton; and #5 - same as #3 except for school boards.
Town of Markham Study	This 1976 study estimated the financial impact of a proposed large lower density residential development called Markham East Developments on the Town of Markham, Ontario.
	Three revenue/cost ratios are calculated from the study and presented in Table 11.1 : #1-revenues and costs from the development for the Town of Markham; #2 - revenues and costs including welfare for the Regional Municipality of York; and #3 - same as #2 except no welfare costs are alloted to the development.
Town of Oakville Study	This 1974 study estimated the financial impact of two proposed large mixed use developments -- Glen Abbey and River Oaks -- on the Town of Oakville,

Ontario.

Four revenue/cost ratios from this study are
included in Table 11.1: #1 - residential revenues and
costs from the two developments for the Town of
Oakville; #2 - same as #1 except for school boards;
#3 - revenues including a pro rata share of taxes
from commercial and industrial growth in Oakville
alloted to the two developments for the Town of
Oakville; and #4 - same as #3 except for school
boards.

City of Oshawa Study   This 1969 study estimated the financial impact of
12 residential areas on the City of Oshawa, Ontario.
These were four single-detached housing areas, four
two-family housing areas, and four apartment areas.

Three revenue/cost ratios for each housing type are
included in Table 11.1: #1 - revenues and costs from
the areas for the school boards; #2 - same as #1
except for City of Oshawa; and #3 - same as #1
except impact on school boards and City combined.

City of Calgary Study   This 1969 study estimated the financial impact of a
hypothetical 76-unit single-detached house subdi-
vision and a hypothetical apartment building on
the City of Calgary, Alberta.

Three revenue/cost ratios are included in Table 11.1:
#1 - revenues and costs from the developments for
school boards; #2 - same as #1 except for City of
Calgary; and #3 - same as #1 except impact on
school boards and City combined.

Township of Richmond Study   This 1971 study estimated the financial impact of
six areas on the Township of Richmond, British
Columbia. Estimates of revenues and costs are
also made for single-detached houses, townhouses
and apartments (separate estimates for 1-bedroom,
2-bedroom and 3-bedroom apartments). These esti-
mates which include schools are included in
Table 11.1.

District of Surrey Study   This 1977 study estimated the impact of single-
family and multiple housing at various densities
and various types of commercial and industrial
development on the finances of the District of
Surrey, British Columbia.

Cost/revenue ratios for the various types of
development are summarized in Table 11.1: #1 is based
on revenues and costs for education and #2 relates
to the Township of Richmond.

The Muller-Dawson Study   This 1972 study estimated the impact of a proposed
mixed use development on the finances of Albermarle
County, Virginia.

A. Origins and Forms of Citizen Resistance

During the last decade, one of the new elements to enter the development field has been citizen participation in specific project decision-making. Prior to that time, decision-making on development projects tended to be confined to a closed system involving only the developer, municipal staff and local politicians. However, recently ratepayers both as individuals and as organized groups have begun forcefully to assert their viewpoints.

In accordance with our terms of reference and political realities, we have labelled this type of activity "citizen resistance to development". The purpose of this chapter is to analyze citizen resistance as a factor restricting lot supply. As always, the analysis is confined to the price and supply effects of citizen resistance and does not address broader questions as to whether or not citizen participation has, on balance, been a positive or negative force.

There appears to be a broad range of reasons why citizen groups have chosen to oppose new development. Typically, such resistance involves opposition by residents living directly adjacent to proposed new development. Several examples are in order. A common case is opposition by residential groups when new development is proposed at higher densities than those found in the adjacent residential areas. Existing residents fear increased traffic, overshadowing by large buildings, increased pressure on schools and parks and the like. These are partly feared for their own sake and partly because of the possible erosion to existing property values that might result. In other cases, existing residents have objected to new development in any form. Residents in some of the fringe municipalities around Metropolitan Toronto, for example, have reportedly resisted any new development on the grounds that they desire to preserve their small community way of life. Green areas are to remain green. Environmental motives for resisting development are commonly quoted in citizen briefs.

What is hard to determine is the extent to which these stated motives form the only motives or indeed the most important motives. Powerful economic motives also exist and it is not clear at the present time the extent to which these motives are generally understood. First, by opposing new development existing homeowners can force price increases and hence appreciate the value of their assets. This effect, however, is certainly insignificant for opposition to single developments in large urban areas. Second, by restricting

development and by supporting their municipal councils in levying lot levies for development that is permitted, existing residents may be able to reduce their tax burden. In both cases, citizen resistance results in a wealth transfer from new home buyers to existing homeowners.

Judging motives for citizen resistance in a scientific, non-impressionistic way is impossible. Even effectively documenting its existence is an extremely complicated and time-consuming task. Because of this difficulty, citizen resistance became an area in which the Task Force had to sacrifice comprehensive national coverage in favour of a case study approach. Case studies cannot claim to be representative but they are certainly illustrative of the processes at work. A second advantage of the case study format developed by the Task Force is that it provides a standard methodology that can be used by local policymakers throughout the country in future research.

Selection of case studies required the development of a set of criteria. The initial proposed development had to have been aimed at the middle or lower income market. The disposition of the case had to have been resolved in order to allow estimation of the final costs; cases in which the developer gave up or in which the land was expropriated were similarly excluded since certain costs could not be measured. All cases had to have been completed within the last five years. All cases had to be in proximity to existing developments and contested by nearby residents. Other factors contributing to delay had to have been resolved so that citizen resistance was the only remaining obstruction to the case. Only cases involving new development were examined to avoid issues connected with redevelopment. Finally, and perhaps most importantly, some initial municipal council or staff decision in favour of the initial proposal had to have been made. This provided the Task Force with an objective benchmark against which to estimate the final costs and/or units lost resulting from the changes made as a result of successful citizen resistance to the initially approved proposal.

Given the limited scope of this summary report, a number of strategies are open to us. One would be to present some summary statistics from a number of case studies. This would present some of the diversity we have observed but would lack the depth of a more complete look at a single case study. For this reason, we have opted for the latter approach and will discuss two case studies in order

to show more clearly the complications that can arise and the methodology that the Task Force has devised. Interested readers are referred to the Task Force Research Studies Volume, Chapter 12, on Citizen Resistance.

B. Case Study I: 'Bedford Glen, Metropolitan Toronto

The case we will examine here is referred to as the Bedford Glen Project in the Borough of North York in Metropolitan Toronto, consisting of 5.6 acres. The residents most directly affected by the proposed development lived west of the site and are residents of the City of Toronto. They therefore had no direct input into the North York Official Plan which regulated the site. The residents opposed the high density designation that the Official Plan allowed for the site, not the fact that redevelopment would occur on that site.

To understand the nature of this opposition, one must briefly consider the events of a twelve-year period which are set out below. Figure 12.1 summarizes the major events.

1965 At the request of the North York Mayor, the developer (Cadillac-Fairview) assembles a 5.6 acre parcel of land at the southern boundary of this borough, adjacent to the City of Toronto, with the aim of placing housing on what was then an unsightly, poorly-maintained site.

1965 North York shifts from the 1948 Official Plan to a series of District Plans.

1969 The developer proposes two 20-storey apartment buildings containing 574 units and 19 row houses for the site; to permit this proposal, North York rezones the area to allow 100 units/acre, in accordance with their 1948 Official Plan.

1970 Ratepayers of the adjacent community, who live in the City of Toronto and therefore have had no direct input into either the Official Plan or the zoning by-law, organize themselves in opposition to the proposed development.

1971 The ratepayers force a public hearing by the Ontario Municipal Board (OMB). The rezoning is refused; the developer appeals to Cabinet.

November, 1973 Under pressure from the residents, North York downzones the site from R100 to R1, allowing only eight units/acre instead of the 100 units/acre permitted by the 1969 by-law.

In the same month, Cabinet refers the original zoning by-law back to the OMB for a rehearing.

FIGURE 12.1

BEDFORD GLEN

CHRONOLOGY OF OFFICIAL PLAN DESIGNATIONS AND ZONING BY-LAWS

Date	Document or Action	Number of Units Permitted /Acre	Possible Built Form
1948	Official Plan	permits 110 units/acre	highrise
1969	North York By-law	R100 – conforms to 1948 Official Plan and permits 100 units/acre	highrise
1971	OMB hearing	refuses to approve by-law	
Nov. 1973	North York By-law	change to R1 – permits 8 units/acre	singles & semi-detached
June 1974	North York District 3-4 Official Plan	R1 – permits 8 units/acre	singles & semi-detached
Dec. 1974	OMB hearing	refuses appeal by developer	
Sept. 1976	North York approves necessary Official Plan Amendment	permits a rezoning to 37 units/acre	lowrise & townhouses
Nov. 1976	North York By-law	RM6 – permits 37 units/acre	lowrise & townhouses

The OMB subsequently refuses to hear the case again because the original R100 zoning which is the subject of the dispute no longer complies with the Official Plan.

June, 1974   North York Council adopts the District 3-4 plan, which designates the site R1. Of course the Bedford Park Ratepayers support this designation. When the plan is forwarded to the Minister of Housing for approval, the developer, as it is entitled to do in Ontario, requires that the Minister refer the lands in question to the OMB for a public hearing.

December, 1974   At the OMB hearing the developer appeals the R1 designation, but the Board rules in favour of North York and the Bedford Park Ratepayers Association.

March-November, 1975   The developer approaches Mr. Jack Marshall, President of the Ratepayers Association, and offers to work with the residents to produce a design agreeable to both. An architect is hired, and a three-man team produces ten low-rise schemes. The last one is found most acceptable. This scheme is presented to the executive and then to a general meeting of the Association, at both of which it receives a great deal of support.

December, 1975   The developer requests that North York rezone the site from R1 to RM6, allowing density to increase to 37 units/acre. The Ratepayers Association strongly support the rezoning, based on the site plans they had helped develop.

May, 1976   North York Council approves in principle the zoning by-law amendment.

September-November, 1976   North York Council passes both the by-law rezoning the site to RM6 and the required Official Plan amendment.

March, 1977   North York Council passes a by-law correcting minor problems in the November 1976 by-law.

The impact of citizen resistance on the Bedford Glen project falls into three areas: the supply of residential units, the type of units constructed, and the increased cost of the residential units attributable to citizen resistance. The impact of citizen resistance on the supply of residential units is easily identified. As stated earlier, the original proposal called for a total of 593 units of apartments and townhouses. This proposal was endorsed by the North York Council and therefore provides an objective benchmark to compare the subsequent reduction in the number of and change in

the kind of dwelling units. The final project calls for a total of 205 units of apartments and townhouses. The result is a reduction of 65.44% or 388 units. In addition, there is a time factor in which the units were delayed from entering the market place from an estimated completion date of June 1971 for the original project to an estimated completion date of August 1978 for the final project. In the absence of citizen resistance, 593 units would have been supplied to the Toronto market during a period of rapidly rising prices. As it turned out, no units were supplied during this critical period. It is somewhat more difficult to analyse the effects on the type of units provided. While the initial proposal called for high density development the final proposal called for medium density. To the extent that this involved substituting "higher quality" units for "lower quality" units, the effect of the citizen resistance was to create a development directed at a higher income segment of the population.

Similarly, while the original proposal called for rental units the final proposal called for condominium units which constitutes an additional form of change from units serving lower income tenants to units serving higher income tenants.

The impact of citizen resistance on cost is more complicated yet. We must consider what items are attributable and what time period should be used. We have decided that attributable costs should include the following: carrying costs of the land, land cost increases due to density change, redesign costs, consultants' costs relative to the redesign (i.e. engineering costs relative to servicing, etc. but not including costs of working drawings) and other consultants' costs relating to meetings with municipal officials and bodies, meetings with ratepayers and OMB hearings, increased cost of services, increase in construction costs, staff time and overhead required by company staff. The relevant time period in this particular case is fairly easy to determine. Since the original proposal was approved by passing of a by-law on November 28, 1969, we are using this date as our base period. The final project was approved by passing of a by-law on March 15, 1977. Our time period for calculation of carrying costs shall thus be from November 28, 1969 to March 15, 1977.

The resulting cost increases were huge, something over $7,000,000. The exact methods used to calculate these costs require a fairly lengthy discussion so interested readers are again referred to the full article in Chapter 12 of the Task Force Research Studies Volume for a complete explanation.

It is sufficient to note here that this large cost increase is not very meaningful by itself and cannot in any sense be used as a measure of the financial impact on the development. One of the basic reasons is that the costs spanned almost a nine year period which was highly inflationary. Thus while there were large differences between construction costs in 1976 and 1968, there were also large differences in the selling prices of the units. Another basic reason is that the final units built were presumably of better quality than the units originally proposed, changing from apples or perhaps grapes, to oranges; thus a quality correction to this $7,000,000 figure would also lower it significantly.

C. Case Study II: Kings Arms, Dartmouth, Nova Scotia

The second case study we shall present is the Kings Arms project from Dartmouth, Nova Scotia. The developer was the Armour Group which proposed 125 apartments in six low-rise buildings. Citizen opposition to the Kings Arms project centered on the issues of traffic and densities and delayed the approval for a relatively short time. Interestingly, the city planning staff continued to support the original proposal throughout the controversy.

The site under consideration is a corner property of 7.5 acres, most of which was zoned R4, allowing 40 units per acre. An application was made to rezone five adjacent lots from R1, allowing five units per acre, to R4. The request was made in order to consolidate the properties and to enable the developer to place a driveway across part of the then R1 land into his development. Nearby citizens objected to allowing such egress onto Glen Manor Drive; in addition, they wanted to retain an R1 buffer zone between them and the proposed development.

In order to fully understand the chronology of events, one must first know that the Armour Group purchased the lots from MacCulloch & Company Limited, a major landholder and developer in this part of Dartmouth. This company was also the developer of a nearby shopping centre, which some citizens claimed had generated large amounts of through traffic onto their residential streets. Their proposed solution to this traffic problem was the construction of an interchange west of the centre, which the province had so far resisted. The citizens, however, believe that they were promised that there would not be any increase in traffic following the opening of the shopping centre; they therefore place the blame for their traffic problems on MacCulloch & Company, the original landholder. It is within this context

that the rezoning application was made.

Following is the chronology of events. Figure 12.2 and 12.3 will assist the reader in following the site-specific details of the dispute.

February, 1976 The Armour Group purchases the land. Part of the agreement stipulated that MacCulloch & Company will be responsible for the necessary rezoning. MacCulloch applies for the rezoning, from R1 to R4 which, among other things, would permit two entrances to the site, one from Mic Mac Boulevard and one from Glen Manor Drive.

March, 1976 Planning staff recommends that the rezoning be approved.

June 22, 1976 At the request of the city, a voluntary public meeting is held. Over 100 residents from the adjacent area are in attendance to express their concerns about the traffic problem and R4 rezoning adjacent to their residential area. The same group opposed the traffic problem created by Mic Mac Mall.

June 29, 1976 Council holds a public meeting for the rezoning application. Because of opposition, it is decided to defer the matter for another week to see if the developers (both the Armour Group and MacCulloch & Company), the citizens and the planning department can work out a satisfactory agreement.

July 5, 1976 A meeting is held between six people representing the residents, the developer, the original landholder, CMHC (who were involved because it was a limited dividend project) and city staff from the planning and traffic authority departments. The developer agrees to reserve land for an R1 buffer, and to lend his support to the study and alleviation of the overall traffic problem in the area. However, he does not concede removal of the contested access; he argues that to do so would mean a roadway must traverse the internal space of the development, thus destroying the amenity area. CMHC and planning staff endorse this point of view.

July 6, 1976 Council agrees to defer the matter another two weeks to again try to effect a compromise with respect to the contested access drive and its effect on the amenity area.

July 5-19, 1976 The developer, CMHC, residents and city staff continue to meet to try to resolve the issue.

July 20, 1976 A revised rezoning application, going along with the ratepayers' wishes, is submitted and passed by Council.

FIGURE 12.2

Case Study 2:
Kings Arms, Dartmouth

Original Scheme

land proposed
for rezoning to R4
from R1

amenity area

access

Micmac Boulevard

to Micmac
Mall

Glen Manor Drive
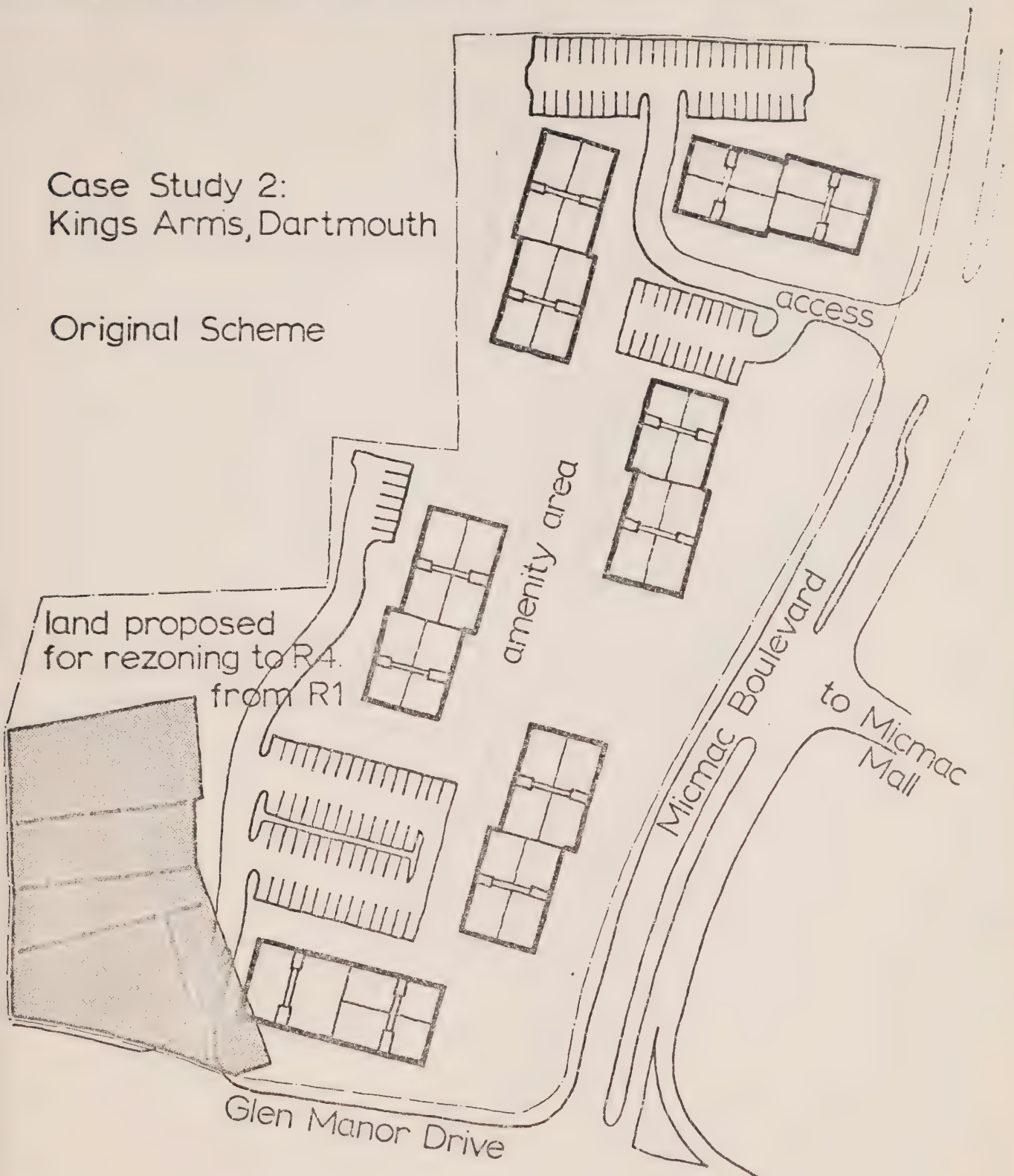
SOURCE: Task Force Staff

FIGURE 12.3

Case Study 2:
Kings Arms, Dartmouth

Final Scheme

R1 buffer

access

Micmac Boulevard

to Micmac
Mall

Glen Manor Drive
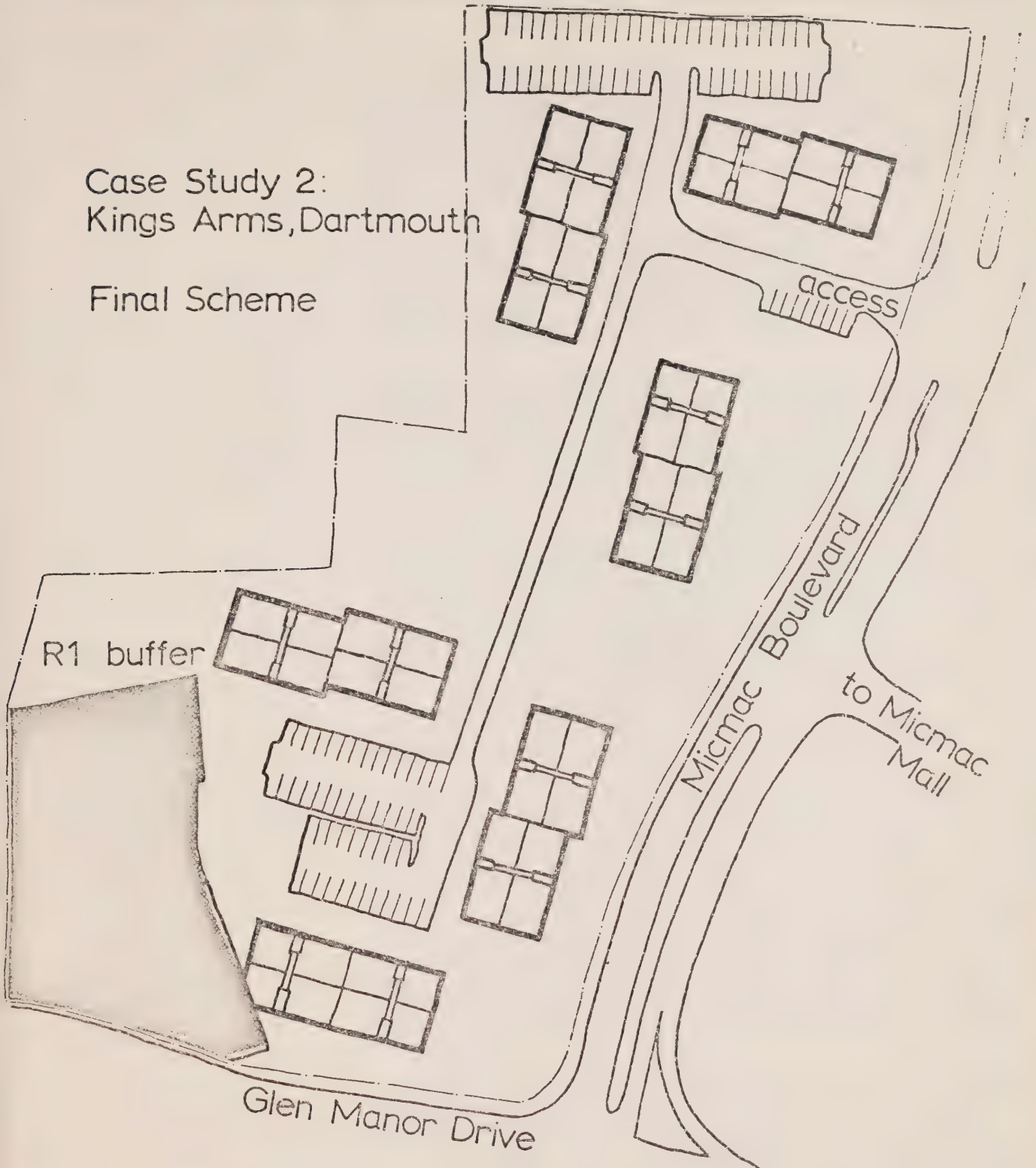
SOURCE: Task Force Staff

As a result of the revisions, the developer's application for a change from R1 to R4 to permit the access driveway was rejected. Further, land facing the adjacent residential area was rezoned from R4 to R1, creating a buffer zone requested by the citizens.

While the Kings Arms Apartments are already built and occupied, the issues surrounding this approval have not been resolved. The citizens are still concerned about the general traffic problem in the area, and City Council has agreed to a long term study of the matter.

What is not evident from the chronology is that the rezonings were not necessary for construction of the project, a point made by the city's planner at the June 29th Council meeting. The requested re-zoning was seen as a "houskeeping matter" by the planning staff and the developers, and both these groups saw the matter as routine, expecting no opposition from the citizens. To accommodate the proposed development without the rezoning required a rearrangement of the site plan. (See Figure 12.3) Because the project has only one entrance, a long driveway now runs through the site on land which, because it was the only flat land in a hilly area, was to have been the amenity area, containing a children's playground and possibly a swimming pool. This driveway traverses a steep grade, and is expected to be difficult for cars during the snowy winters in Dartmouth. To keep it free of ice and snow may entail increased maintenance costs.

As in the case of Bedford Glen, this case reached a resolution because the developers and citizens sat down together to reach a solution. However, in this case it was the developer who made all the concessions. While some were readily made, such as the R1 buffer, others did not come easily at all – most notably the relinquishing of the second access to the site. Not only the developers, but also CMHC and the city planners felt this was the wrong decision. However, to take the case to the Provincial Appeal Board would have meant a further delay which the developers claimed not to be able to afford.

The original Kings Arms Apartments proposal called for 125 apartment units in six buildings. These buildings were to have been split into two groups of three each, with one group being serviced by an entranceway from Mic Mac Boulevard and the other group by an entranceway from Glen Manor Boulevard. The final project remained as 125 apartment units in six buildings; however, all the buildings are

now serviced by an entranceway only from Mic Mac Boulevard. As an aside it might be noted that this creates a potential hazard by providing only one entrance for emergency vehicles. This change in road pattern resulted in an increase in the length of the roads required as well as in the relocation of the buildings on the site. The change in location meant that the excavation had to be made in rock rather than in soil. Although approval of the project was delayed by only two months, the timing resulted in winter construction on part of the project instead of fall construction. This too added to the cost. It should be noted that three of the buildings that were not affected by the rezoning were already under construction. Because of the delay the site superintendent and other project staff were required to be idle for a period of time which also added to the cost. One benefit to the developer was that because the rezoning on one lot was refused, the project was reduced in land area resulting in freeing a lot for a single family house with an estimated lot value of $10,000.

As this project was a limited dividend project funded by CMHC, CMHC had already approved the site plan, the mortgage financing and the rental structure. We therefore have an objective analysis of the extra costs in that they were assessed by CMHC and the permitted rents were increased as a result by $8.00 per unit per month.

A summary of the financial impact is shown in Figure 12.4.

D. Implications of Citizen Resistance

Other case studies presented in Chapter 12 of the Research Studies Volume tell stories that differ in interesting but ultimately superficial ways from the Bedford Glen and Kings Arms stories (although the Bedford Glen project had the highest cost increases of all the case studies). While each case has its own unique characteristics, all have roughly the same broad economic implications that are of interest to us here. First, citizen resistance has often resulted in decreasing the supply of new dwellings over time. Second, since citizen resistance is often directed against proposed medium and high density developments, it may ultimately result in increased land consumption at the same time that it is decreasing the number of units produced. For precisely the same reason, citizen resistance may tend to discourage production of low and middle income housing relative to upper income housing. The third consequence of citizen resistance is to increase the expected costs of development and thereby reduce potential supply. In future years developers will be required to make

FIGURE 12.4

Kings' Arms Apartments - Dartmouth, N.S.

Increased Costs Due to Citizen Resistance

ITEM		COST	COST PER UNIT
1.	Increased cost of roads	$16,000.00	$128.00
2.	Extra excavation costs	15,000.00	120.00
3.	Winter construction extras	39,000.00	312.00
4.	Increased project staff cost	13,500.00	110.00
5.	Carrying costs	21,666.00	173.00
6.	Redesign and engineering fees	8,000.00	64.00
7.	Release of single family lot	-10,000.00	-80.00
Total Increased Costs		$103,166.00	$827.00

SOURCE: Task Force Research Studies Volume
            Chapter 12.

rough estimates of these costs in deciding on whether or not to undertake development. Ironically, the expected likelihood of meeting citizen resistance is probably greater in infill developments than in urban fringe developments. Thus citizen resistance is likely to dissuade developers from undertaking infill development at precisely the time when it seems that public policy should be encouraging such development.

Finally, citizen resistance to development tends to increase the risk present in land development. As mentioned several times in this report, increases in risk will increase the expected profit margin required if businesses are to be willing to participate in land development. High risk also tends to favour large integrated firms and this may contribute to increased industry concentration.

It is the opinion of the Task Force that citizen resistance to development has certainly not been a major contributor to high lot and housing prices up to the present time. Prices were demand-determined during the early 1970's as we have often argued. Similarly, citizen resistance is a fairly new phenomenon, and we have also argued that supply restrictions of this type only begin to produce significant price increases as their effects become cumulative over a number of years. The Task Force is concerned, however, that from the present time onward, citizen resistance will become an increasingly important determinant of lot prices. Further citizen resistance may discourage medium and high density development, discourage the production of low income housing, discourage infill development, and contribute to increased concentration in the development industry for the reasons noted above.

The introduction to this chapter noted that no attempt would be made here to assess any beneficial aspect of citizen participation such as better overall planning. Such an investigation, while obviously of great importance, lies well beyond the Task Force's terms of reference. Perhaps we can conclude, however, by noting that the reasons for citizen resistance to development are certainly considered legitimate in our socio-economic system. On the other hand, we also wish to emphasize that the desires of potential home buyers for decent, affordable housing are also legitimate interests, and therein lies the problem. Existing homeowners have highly effective political representation at the municipal level. Potential home buyers, however, have no such direct representation and are at best indirectly represented by the developer.

It thus seems that the political process contains an inherent bias in favour of one of these conflicting groups. It does seem legitimate, therefore, to label citizen resistance as a "problem" and to suggest that this problem may continue to grow in the absence of more effective political representation for the potential home buyer.

Another set of important real world factors that was ignored in our early discussions of land price determination relate to various taxes that either affect land prices directly or indirectly via their effects on agents operating in the land market. As was the case with the ownership concentration issue a good deal of controversy exists over the effect of taxes on land prices. In the latter case, however, good empirical work is extremely difficult and the Task Force with its limited time and budget cannot hope to offer the same type of definite conclusions that were offered in the chapter on concentration. The basic reason for this difficulty is that taxes set in motion complex reactions that work their way through the economic system to eventually react back upon the original variables affected by a particular tax. One consequence of this complexity is that the long-run effects of a particular tax may be the opposite of the short-run effects. Similarly, we cannot precisely measure the effect of taxes because we cannot, of course, know with certainty what would occur in the absence of those taxes.

The major issues and controversies involving the effects of taxes on the land market can probably be divided into four types for purposes of analysis. It might prove expositionally convenient to define each of the four as a hypothesis and then proceed to analyze them individually. (A) Taxes have reduced the raw land potentially available for residential development. (B) Taxes have created certain costs unique to the development industry that are passed on to purchasers of housing. (C) The relatively recent requirement that developers bear all servicing costs instead of having municipalities finance services through taxes (still in practice in Quebec) has resulted in substantially higher lot prices. (D) Taxes are acting to alter the structure of the land development industry. In particular, taxes are contributing to increasing the concentration of raw and serviced land ownership.

A.   Taxation and the Supply
          of Raw Land

The first hypothesis results from separate and combined effects of a number of taxes. One of these is capital gains taxation which became effective in Canada on January 1, 1972. The original legislation deferred indefinitely, taxes on farmland gifted or bequested to a spouse. In addition, since 1973 capital gains may be deferred indefinitely on farmland transferred by a farmer to his children. The deferred tax becomes payable if and when the children stop farming or sell the farm to buyers not classed as family members. This indefinite postponement could act as an important incentive to

keep farmland in family use and thus reduce the supply of potential development land and raise the price of serviced residential land.

An additional form of capital gains taxation was created in Ontario with the enactment of the Ontario Land Speculation Tax in April, 1974. Several provisions of this tax discourage conversion of farmland. However, these provisions and tax liability can be avoided without great difficulty as will be discussed later.

Succession duties, gift taxes and land transfer taxes may also discourage the conversion of farmland and therefore reduce the supply of land potentially available for development. Only two provinces now levy succession duties and gift taxes - Quebec and Ontario. Farm property passed on to a farmer's children is accorded preferential treatment under succession duties in Ontario and under gift taxes in Ontario and Quebec. Ontario and Quebec are the only provinces in Canada imposing a land transfer tax. The City of Halifax also levies a land transfer tax. In all cases the taxes are very small and do not give preferential treatment to transfers within families. The Ontario tax however, taxes real estate purchases by non-residents of Canada at 20% and the Quebec tax levies a 33% duty on raw land purchases by non-residents of Canada. In both cases, however, non-resident land developers can defer and ultimately avoid the tax if the property is developed and resold.

The final type of tax that affects the potential supply of land for development is the property tax. In most provinces land on the urban fringe which is being farmed is assessed at its value in use as farmland regardless of whether the land is owned by farmers, developers, or speculators. Since the development value of farmland adjacent to urban areas is ordinarily much above its value as farmland, farmland is accorded preferential assessment treatment. Some provinces, in addition, tax farm properties at a lower rate than other properties or give tax rebates to owners of farmland. The exact arrangements vary from province to province and are treated in detail in the Task Force Research Studies Volume, Chapter 13. It is sufficient here to note the general point that in all provinces the property tax discourages conversion of farmland into residential land since the act of conversion increases the property tax liability.

As noted above, estimation of the importance of each of these taxation measures in retarding the conversion of farmland into urban uses is difficult.

Studies that have been done both in Canada and in
the United States, however, show that these tax
provisions seem to cause nothing more than a slight
reduction in the quantity of farmland converted to
urban use. Taken together their combined effect is
somewhat greater. Nevertheless, we are willing to
venture the opinion that the collective effect of
tax measures giving preferential treatment to farm-
land do not significantly affect the longer-run
supply of potential development land.

B. Taxation and Development Costs

The second hypothesis noted above was that taxation
has created certain costs, unique to the develop-
ment industry, that are passed on to the purchasers
of housing in the form of higher prices. One pro-
vision of the income tax is frequently mentioned in
this regard. Beginning in May, 1974, with the
exception of the Ontario Corporate Income Tax,
owners of undeveloped land can no longer deduct
interest and property taxes on this land as
expenses in the year these payments were made.
Instead these payments are added to the cost of the
land and deducted from the sale price when the land
is sold. Prior to May, 1974 these interest and
property tax payments were deductible as an expense
in the year they were made and losses created could
be offset against other income. The government's
stated purpose in deferring this deduction was to
force developers, alleged to willfully withhold
land off the market, to bring that land onto the
market more quickly.

The immediate impact of non-deductibility was to
raise the effective carrying costs on undeveloped
land. Current income tax payments increased
sharply while deferred taxes payable declined.
Companies had fewer internally generated funds to
use for expansion of their activities. In brief,
non-deductibility of carrying costs tended to
reduce cash-flow.

In the short run, it seems highly unlikely that
this measure had any significant impact on the
supply or price of serviced residential land.
Prices were demand-determined in 1974 and 1975 in
all parts of the country and in most areas,
supply was constrained by the capacity of the
industry and by subdivision approval processes
rather than by the industry willfully withholding
land.

The longer-run effects will likely depend upon a
number of factors. First, it was argued above
that the price of raw land is a residual: it
represents the amount a development company is
willing to bid after deducting all costs plus some

profit margin from the expected selling price of developed land. Thus if the non-deductibility of carrying costs represents an increased cost to the firm, non-deductibility may partly result in a reduction in the prices that developers are willing to bid for raw land in the future. On a percentage basis, this reduction should be small and should not prove important in the decisions of farmers to sell. If this argument is correct the effects of non-deductibility are then partly borne by farmers in terms of lower raw land prices.

A more important long-run effect of non-deductibility is that it tends to favour the larger, well-integrated firms relative to small firms. A discussion of this possibility is postponed, however, until we consider the fourth hypothesis mentioned above: the argument that our tax structure is acting to increase concentration.

Although we have consistently avoided dealing with qualitative issues in this Report, we might also raise the possibility that one effect of non-deductibility may be to drive developers away from holding long-range land. To the extent that this implies that developers will give up on coherent, large-scale phased developments in favour of a series of small, non-integrated, short-run projects, the quality of new development may depreciate.

Lot levies instituted over the last few years represent a second type of new cost that now faces development firms. In most municipalities outside Quebec, residential land developers are usually responsible for the cost of installing municipal services such as sewer, water, roads, gutters and sidewalks within their subdivisions. Municipalities generally are responsible for providing trunk services to the developers' property: sewerage and water treatment plants, trunk sewer and water lines, and arterial roads. Lot levies which originated in Ontario were an effort by municipalities to get developers to pay an appropriate share of the costs of these trunk services.

Lot levies are commonest in Ontario and British Columbia though they are also found elsewhere. Levies are not generally a feature of the Quebec or east coast housing markets. Levies range from nil in most Quebec municipalities to $4,000 per single-detached lot in some Ontario municipalities. In some of the latter, it appears that levies are now greater than the off-site servicing costs of the municipalities and thus represent an attempt on the part of existing municipal corporations to cash in on the housing boom by "selling" subdivision

approvals.

The impact of lot levies on development firms is similar to the impact of the non-deductibility of carrying charges, although the former can be much more substantial in Ontario and British Columbia. Both lot levies and non-deductibility increase a firm's costs prior to the receipt of revenues from sales. Thus both measures cause potential cash-flow problems and increase the financial resources needed by land development firms. Unlike costs due to non-deductibility, however, lot levies cannot necessarily be recouped at the time of sale.

Lot levies became increasingly common in the early 1970's in a period of exceptionally high land prices. Large profits were being realized on land purchased years earlier. Thus it seems likely that the short-run impact of the levies was that they were absorbed by the development firms and windfall profits were reduced accordingly. As has been noted several times in this Report, prices were demand-determined all across the country during this period and it seems highly unlikely that lot levies have had any impact on final lot prices up to the present time.

But it has also been suggested above that this period of high windfall profits has come to a close especially now that developers are replacing their inventories at 1970's prices. Thus in the future, lot levies will most certainly have an effect on raw land and on serviced lot prices. At one extreme, lot levies could be fully borne by farmers in terms of reduced raw land prices. In this case, the lot levies would amount to a transfer of wealth from farmers to municipal corporations and their existing ratepayers. At the other extreme, lot levies could be fully passed on to home purchasers in the form of higher lot prices. In this case, the lot levies would amount to a transfer of wealth from new home buyers to municipal corporations and their existing ratepayers. The actual outcome will likely lie somewhere in between.

C. Servicing Requirements and Lot Prices

The third hypothesis mentioned above was that the relatively recent requirement that developers bear all servicing costs instead of having municipalities finance services through taxes had resulted in substantially higher lot prices. At one time most municipalities used local improvement charges to finance the cost of providing sewer, water and roads to new subdivisions. This meant that the purchasers of new housing paid these charges through property tax installments. Municipalities issued debentures having a 15 or 20 year term and

prorated the annual debt service charges to the
affected property owners generally on a foot front-
age basis.

At present, only Quebec municipalities still
finance these capital costs through local improve-
ment charges. The universal practice elsewhere is
to require the developer to pay these costs prior
to construction of new housing. The Province of
Quebec is urging its municipalities to require
developers to pay a portion of the capital costs of
providing sewer, water and roads.

The price effects of requiring developers to
provide all services are similar to the effects of
lot levies. Servicing costs are many times greater
than lot levies, however, and there seems to be no
professional disagreement with the viewpoint that
the requirement of developer servicing has substan-
tially raised the price of serviced lots. We saw
in Chapter 8 that some municipalities high grade
their service requirements and standards, which may
be related to the requirement that someone else,
the developer, is required to pay for them. To the
extent that this happens, the cost of a serviced
lot is even higher under the developer financing
method than with local improvement charges.

There is one important reason for discussing
servicing charges separate from lot levies: to the
extent that servicing costs included in lot prices
merely replace local improvement charges levied on
the home buyer, developer financing of services may
have little or no financial impact on home buyers.
If developers pay for services, home buyers pay for
them through mortgage payments. If municipalities
finance the services through charges levied on the
home buyer, home buyers pay for them through their
property taxes. This rough equivalence will,
however, disappear if municipalities high-grade
their services as noted above or if municipalities
can obtain financing on significantly better terms
than can be obtained by private firms.

D. Taxation and Development Industry Concentration

Many of the ideas discussed up to this point tend
to suggest the fourth hypothesis mentioned above:
taxes are acting to alter the structure of the land
development industry; in particular, taxes are
contributing to increasing the concentration of raw
and serviced land ownership. The basic idea is
that a number of factors have acted to cause huge
increases in the financial resources needed to
profitably participate in land development. First,
we have mentioned the reduction in cash flow caused
by the non-deductibility of carrying costs on
undeveloped land.

Second, there is the financial requirement that
developers front-end the cost of municipal services
within subdivisions. Third, we have discussed the
increasing imposition of lot levies by municipali-
ties. Fourth, in Ontario a number of provisions of
the land speculation tax tend to favour the larger
developer/builder firms. Finally, there is a
feature of the income tax that we have not previ-
ously mentioned. Real estate corporations can
deduct "losses" arising from capital cost allow-
ances on rental buildings from other sources of
income including land development profits. This
tends to favour the larger integrated firms over
small firms or even over large development firms
that have no such rental income.

Summarizing, we suggest that the influence of
various land taxes, corporate and personal income
tax laws, and municipal lot levies on land develop-
ment and lot prices has probably been minor up to
the present time. In the future, however, it seems
likely that these factors may lead to the elimina-
tion of many small development firms and thus lead
to a significant increase in concentration in the
development industry. Thus, while a previous
chapter has shown that industrial concentration is
not an existing problem, it may become a signifi-
cant problem in the future.

A. The Objectives of Large-Scale Land Assembly

It is beyond the scope of this report to consider the broad question of whether or not the government should be engaged in land acquisition and lot servicing programs. The Task Force has been charged with investigating the determinants of land prices which is a large enough question in itself. The purpose of this chapter, therefore, will be to attempt to make some assessment of the impact of land banking and lot servicing programs on the overall level of and changes in urban land prices. This objective more or less implies that the discussion will be confined to large scale assembly and servicing programs on the urban fringe. No matter how large, infill projects designed to meet special objectives generally have no effect on overall prices (nor are they intended to) and will not be dealt with here.

Before presenting our analysis, a brief history of large scale land banking is likely needed to help clarify what in fact the objectives of these programs were. Federal involvement can be traced back to 1949 when Section 40 of the National Housing Act permitted CMHC to jointly undertake with a province the acquisition and development of land for housing purposes. In 1964, Section 42 of the National Housing Act provided federal loans up to 90% for acquisition and servicing of land required in public housing programs. The Hellyer Report (Federal Task Force on Housing and Urban Development) released in January, 1969, made a recommendation that more public land ownership was necessary in order to achieve cheaper land prices.

In June of 1969, Section 42 of the National Housing Act was expanded to allow the acquisition of land for general as well as public housing purposes. Mr. Andras, Minister of Urban Affairs, stated in the House of Commons on June 13, 1969: "We must also face another problem created by increased urbanization, the inflated land costs in our larger cities ... This innovation in federal assistance to provinces and municipalities affords us an opportunity to help make many more Canadians realize their hopes for houses of their own".

In 1973 the Minister of Urban Affairs announced a massive enlargement of the program adopted in 1969. The federal government offered to make available 500 million dollars in loans to provinces over the next five years, the money to be used for the acquisition of land that would eventually be serviced and sold as building lots. Land assemblies were expected to bring down rising land prices. Mr. Basford, Minister of Urban Affairs, told the House of Commons on March 15, 1973, that "the price

of land is one of the most critical factors in the cost of housing in most markets throughout Canada. I propose to encourage provincial and municipal governments to become more active in public land acquisition and servicing". A more direct statement by Mr. Basford was contained in the explanatory notes on this bill: "One of the most critical factors in the cost of housing is the price of land. All governments must be prepared to act to increase the supply of serviced land if housing is to continue to be available and accessible to Canadians. An overall strategy is necessary and to this end, provincial and municipal governments will be encouraged to become more active in public land acquisition and servicing".(1)

It thus appears clear that the large sums of money committed by the Federal Government were for the purpose of achieving reductions in land prices. The exact mechanism by which this objective was to be achieved was never really spelled out in the written record of political debate. A document widely quoted by supporters of the government involvement, however, was a 1972 book by Dennis and Fish, Low Income Housing, Programs in Search of a Policy (Hakkert, 1972). This book asserts that there are six ways in which the government can achieve its price objective: (1) Government can avoid taking speculative profits on raw land. Land can be acquired well in advance of need, and sold for acquisition cost, plus carrying charges, plus servicing costs, plus perhaps a small profit. (2) Government can buy more cheaply with the power of expropriation at fair market value, without paying holdout prices. (3) Because of its planning powers, government can ensure that all of its land is marketed. (4) Government holding costs are lower because it can borrow money more cheaply. (5) Public servicing costs are lower. (6) Large scale land development activity has a moderating effect on private prices because it can flood the market at any time that price increases get out of hand.

Each of these six points has its supporters and its critics. Carr and Smith in Land Economics (1976) provide evidence that point (4) is false. These and other critics argue that absolutely no evidence has been produced to show that point (5) is true and that, in fact, existing evidence shows that point (2) is false. The facts, they state, show

(1) Explanatory notes on a bill introduced in the House of Commons by Honourable Ron Basford, Minister of State of Urban Affairs, January 30, 1973.

that expropriation usually results in settlements greater than market value. This Report has essentially argued that point (6) is likely false. Since short-run prices are dominated by the existing stock of housing, significant changes in new production have sharply limited short-run effects. Finally, a number of authors such as Baxter and Hamilton have argued that point (3) is largely false in practice.(1) They argue that the planning authorities are generally independent (and rightfully so, they state) of the public development corporations and thus the latter bear the same uncertainty about subdivision approvals that is borne by private developers.

The Task Force is not in a position to conduct a detailed analysis of these arguments. What we can do is present several case studies of how land banking programs have operated and evolved over time. Case studies will be presented for Manitoba, for Saskatchewan and for Ontario.

Our limited time and budget further restricted us to addressing only two issues in each case study. First, we examined whether or not government corporations were able to acquire land more or less cheaply than private developers. This relates to argument number (2) of Dennis and Fish noted above. Second, we looked at the timing of government land purchases and their possible effect on raw land prices. Following the case studies, a short section on the ability of government land programs to moderate short run price fluctuations is presented. This relates to argument number (6) of Dennis and Fish as noted above and the stock-flow issue.

B. Case Study I: The Manitoba Housing and Renewal Corporation

The federal government offer of 1973 mentioned above led the Manitoba Housing and Renewal Corporation (MHRC), established in 1969, to begin a large-scale land acquisition program in Winnipeg. 35.1 million dollars was committed to the program which purchased over three thousand acres in the four-year period 1973-76. Purchases and prices paid are shown as follows:

Year	1973	1974	1975	1976
Millions of Dollars Committed	3.4	15.9	5.2	10.6
Acres Acquired	530.0	2153.0	292.0	383.0

(1) Baxter and Hamilton in Walker and Smith (editors), Public Property: the Habitat Debate Revisited. Fraser Institute, (1977).

Purchases were made on the open market and not by expropriation. With the wisdom of hindsight, we now know that the corporation began its massive purchases of land just at the worst possible time. The Bellan Commission Report (the Winnipeg Land Prices Inquiry Commission) presented the following analysis:

> "Another major factor in the increase of raw land prices after 1972 was heavy purchases by the Manitoba Housing and Renewal Corporation and Qualico Developments Limited. MHRC, in response to the federal government's offer to finance the creation of 'land banks' by provincial agencies, began to buy land on a substantial scale in 1973 and by 1976 had acquired over 3,000 acres in Winnipeg, within the perimiter of ..."

> "The extensive purchases of these two organizations, one drawing on the long purse of the government and the other a large private firm that was determined to acquire a great deal of land quickly and with small cash payments, had a marked effect on land prices. Speculators who anticipated where either might wish to buy rushed in to buy beforehand, for resale to one of the giants at a handsome markup. Even where no speculators were involved, prices rose sharply: owners were not slow to ask the prices that could be extracted from eager buyers possessed of large financial resources."

> "The big land banks assembled by MHRC and Qualico contributed to the escalation of prices in yet another way. By permanently withdrawing land from the market they caused the demand of investors to become concentrated on a smaller available supply, forcing the price further upwards".(1)

Bellan emphasizes that MHRC not only did not obtain land cheaply but that it bought heavily at precisely the wrong time and thus contributed to rapidly rising raw land prices. What the Commission's Report did not emphasize is that during this period MHRC did not put a single serviced lot onto the market. The first lots should be supplied to the market by spring of 1978. MHRC was buying at or near the top of the market not to replace inventory

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(1) Report and Recommendations of the Winnipeg Land Prices Inquiry Commission, 1977, p. 37.

but to add to inventory. Its actions during the boom years thus did not tend to smooth out price fluctuations or depress prices but rather likely helped to increase prices. Now the corporation is beginning to supply lots to a soft market which may depress prices to unprofitable levels (given the high at which raw land was purchased). On the other hand, we have repeatedly argued that these supply effects have a sharply limited ability to affect short run prices and thus we do not, of course, believe that the activities of MHRC were a primary cause of the Winnipeg lot and housing price boom. Bellan could certainly be right, however, if he was simply suggesting that the activities of the MHRC helped cause a speculative bubble in raw land prices.

One might argue that such criticisms of poor timing are based on hindsight but that no one is smart enough at any point in time to know exactly where the economy stands in relation to the business cycle. Indeed, Bellan cites Qualico, a private firm, as also buying heavily during the boom years.

But this is precisely the point. The argument drawn from Dennis and Fish above (point 1) relies for its validity on a government corporation having excellent business sense and good timing. If its timing is bad, the government corporation may in fact increase speculators' profits rather than lower them as MHRC seemed to do.

A final important question should be raised in this regard. The argument that a government corporation can supply lots more cheaply than private industry by refraining from taking speculative profits embodies a crucial assumption: that prices have taken an unexpected upward jump between land pur-chase and land sale so that the opportunity for speculative profits does in fact exist. We have argued several times in this Report that raw land prices fluctuate considerably and some evidence exists that prices have lately fallen in many parts of the country. It occurs to one to ask the ques-tion of what happens when a government corporation buys at the top of the market and sells at the bottom. For a private corporation, the resulting losses could be adequately covered by high profits realized at the opposite end of the business cycle; and if they are not, the public does not lose. But if a government corporation takes no "speculative profits" in good years, who is to cover losses in bad years?

In addition to considering the timing issue, we should also consider the frequent suggestion that

government corporations inevitably pay more for land relative to private buyers because of the open and constrained way in which they are forced to operate. In order to test this hypothesis, the Task Force examined land transactions by MHRC and private buyers in the Charleswood area of Winnipeg from data provided to the Task Force. Transactions are shown in Figure 14.1. Figure 14.2 averages the prices paid in each year 1973-1976 by MHRC and by the private buyers. The last row of this Table presents the differences in per acre prices.

This sample is too small to draw definitive conclusions, but it does not support the hypothesis that a government corporation will necessarily pay more for raw land. In 1973 and 1974 MHRC paid less for land while in 1976 it paid more. Given the small sample, it is really not possible to make a more definitive statement than that.(1) Perhaps even a greater difficulty is that these parcels may, of course, be of different quality (e.g., the number of years away from development), a problem that will be discussed in the next chapter.

Two features of MHRC's corporate set-up undoubtedly helped it to buy land as cheaply as private buyers. First, it has demonstrated flexibility in the location and timing of its purchases. Secondly, it has the ability to pay cash for land; this clearly is more attractive to potential vendors than the standard financing method of the private sector of giving back to the vendor a partial mortgage.

To summarize, we have been critical of MHRC for buying large amounts of land at the top of the boom. By itself, this might not have been so damaging if the corporation had attempted to market the land as serviced lots as quickly as possible. But the corporation bought without any plans for immediate development. The effect of such an action is obviously to reduce the amount of land that is available. On the other hand, we have also found no support for the hypothesis that the corporation paid more than market prices for the land that it did buy. Thus no inefficiency was obvious in this phase of its activities.

C. Case Study II: The Saskatchewan Housing Corporation

In 1973, the Saskatchewan Housing Corporation (S.H.C.) was formed and given, under the Land Assembly Program, a substantial budget for the

(1) The proper technical procedure is to apply what is known as a Chow test to certain regression equations but the sample is unfortunately too small. (Discussed in Chapter 14 of the Research Studies Volume).

FIGURE 14.1

CHARLESWOOD AREA OF WINNIPEG

	DATE	PURCHASER	PRICE PAID PER ACRE
(1)	**MHRC properties:**		
A	Apr/72	McCreary Investments Ltd.	$ 700
	Dec/72	Tundra Trading Co.	720
	Jul/76	MHRC	3,992
B	Dec/73	MHRC	1,499
C	Mar/69	Nonico Investments Ltd.	250
	Apr/71	Elizabeth Hooker	500
	Nov/73	MHRC	900
D	Jan/74	Young-Wood Properties	400
	Aug/75	MHRC	2,200
(2)	**Private Properties:**		
A	Jan/75	Colt Lands Ltd.	1,781
B	Dec/76	Interstate Advance Ltd.	3,472
C	May/73	Kirkfield Properties	1,052
	Aug/73	Qualico Developments Ltd.	2,073
D	Oct/73	Coronet Enterprises	750
	Feb/74	Sunny Hills Investments	750
	Nov/75	Qualico Developments Ltd.	4,000
E	Mar/69	Nonico Investments Ltd.	250
	Apr/71	Elizabeth Hooker	500
	Dec/74	Qualico Developments Ltd.	3,990

SOURCE: Task Force Research Studies Volume,
Chapter 14.

FIGURE 14.2

AVERAGE PRICES PAID PER ACRE FOR RAW LAND IN

THE CHARLESWOOD AREA OF WINNIPEG

	1973	1974	1975	1976
MHRC PROPERTIES	$1,200	-	$2,200	$3,992
PRIVATE PROPERTIES	$1,292	$1,713	$2,891	$3,472
DIFFERENCE	$ -92	$ -	$ -691	$ +520

SOURCE: Task Force Research Studies Volume,
Chapter 14.

purchase of raw land for future residential development. The money came entirely from provincial sources; no federal funds under Section 42 of the N.H.A. were used because of the interest rate involved. During the next four years, 1974 - 1977, both the public and private development sectors purchased substantial holdings. The S.H.C. expended $2.05 million to buy 985 acres of undeveloped land on the periphery of Regina. Four private developers, during the same period, spent slightly over $8.5 million to buy approximately 2400 acres. Of these four, the largest by far was Cairns Homes Ltd., a subsidiary of Nu-West Developments. These purchases have made the S.H.C., and Cairns Homes, the two major landowners in Regina as well as the city's two major developers for the foreseeable future.

All these purchases were made at different times during the four-year period, for land of varying attractiveness in terms of its probable distance in time from development.

A number of factors make data on the Regina market unusually easy to collect. First, the urban area is relatively small. Second, the method of land survey has encouraged the purchase of peripheral land in large tracts - usually quarter-sections or greater - and rendered the record of the purchases correspondingly easier to compile. For these reasons, it has been possible to take into account all public and private purchases of peripheral undeveloped land during the four years, rather than a partial sample. Because the information is complete, the conclusions are comprehensive.

Figure 14.3 shows the purchases of developable land made by public and private sector firms in Regina from 1974 - 1977. In this case, we were able to classify parcels according to the order in which they would be brought onstream. Purchases in Figure 14.3 are therefore, classified as "near" to development, "medium", and "far" from development.

This difference in quality makes comparisons difficult. Ideally, one could use current interest rates and expected future rates of land price appreciation to bring the parcels to a common base. We shall not attempt to do so. The problem can be illustrated, however, by looking at the 1974 purchases. S.H.C. purchased 320 acres of "far" land for $1000 per acre while Cairns purchased 320 acres of "medium" land for an average of $1,800 per acre. Without more information such as how far is "far" and expected future rates of price appreciation, one cannot say who made the better deal. In

FIGURE 14.3

PURCHASES OF DEVELOPABLE LAND, PUBLIC AND PRIVATE SECTORS: REGINA,
1974 - 1977

	Price per Acre	Date of Purchase	Number of acres at varying distance from development		
SASKATCHEWAN HOUSING CORPORATION:			Near	Medium	Far
A	$ 1,000	Dec/1974			320
B	$ 1,501	Feb/1975	160	160	
C	$ 3,175	Aug/1976		160	
D	$ 4,000	Apr/1977		160	
PRIVATE DEVELOPERS:					
1	$ 1,000	Mar/1974	160	160	160 Harvard Devts.
2	$ 1,800	Apr/1974	320	480	Cairns Homes
3	$ 3,000	May/1974			160 Cairns Homes
4	$ 3,850	Jan/1976		160	160 Wascana Devts.
5	$ 4,375	May/1976	160		Cairns Homes
6	$ 8,250	May/1977			160 B.A.C.M. Ltd.
7	$10,000	Jun/1977			320 Cairns Homes

SOURCE: Data provided to the Task Force

other transactions from 1974, Harvard seemed to make a better deal than S.H.C. (due to better land for the same price) while the other Cairns' purchase seemed to be a poorer deal than the S.H.C. purchase (due to a higher price for the same quality land). Thus in 1974 the record is unclear.

For 1976 and 1977 on the other hand, S.H.C. seemed to strike deals that were far better than those obtained by the private developers. S.H.C. generally obtained land nearer development for lower prices. On balance then, it appears that the S.H.C. did better than private developers during the period in question. To date, the Task Force has not performed the proper statistical test of this proposition (a Chow test) which might not turn out to be significant in any case due to the small sample size.

While S.H.C. seemed to have a very good record on prices paid for raw land, the timing of its purchases were similar to those of MHRC. S.H.C. bought large parcels in December 1974 and February 1975 at or near the top of the boom. The extent to which this may have helped heighten and sustain the boom we will likely never know. It is interesting to note that private developers made no purchases for a 20 month period from May 1974 to January 1976 after having bought heavily in the spring of 1974 on the upside of the boom.

D. Case Study III: The Ontario Housing Corporation

Ontario Housing Corporation's land assembly program was launched in August 1967 as part of their Home Ownership Made Easy (H.O.M.E.) Plan. At the end of the 1968 Federal Provincial conference on housing and urban development, the Ontario Minister of Municipal Affairs stated the provincial opinion that rising land costs should not simply be attributed to the increased cost of services, and suggested that the significant factor in land cost was the cost of raw land. Ontario suggested that "massive public intervention in the acquisition of land would do much in resolving the problem" (Federal-Provincial Meeting on Housing, C.M.H.C., 1968).

In 1972, in response to specific questions directed to OHC from the Ontario Advisory Task Force on Housing regarding the purposes to be served by their land assembly program, OHC replied:

> "...OHC's involvement in the land assembly process can temper or offset price differentials based on such factors as zoning, scarcity, speculation, and accrual to the public of the betterment inherent in

development" (OHC submission to the
Ontario Advisory Task Force on Housing
Policy, 1972).

The objectives of OHC's land assembly strategy was
reiterated by the Minister of Housing in 1973 as
follows: (A) to purchase raw land at reasonable
prices in areas of rapid urbanization; (B) to
ensure that land is available to support the devel-
opment proposals being produced to structure growth
in the various economic regions; (C) to provide for
development in selected regions by establishing a
base or centre (new town) in order to achieve a
balanced community; (D) to minimize the effects of
land speculation in the more rapidly developing
areas of Ontario; (E) to provide a means of devel-
oping communities to a higher level of socio-
economic achievement.

To meet these objectives, OHC is permitted to pur-
chase on the open market or to expropriate, though
the Corporation has generally followed the free
market process. A real estate agent is selected to
acquire land, acting as an agent for an undisclosed
purchaser. Extreme confidentiality is required
during the acquisition process since land prices
tend to escalate rapidly when the pattern of an
assembly becomes evident. Real estate brokers
appraise the market and a target price is deter-
mined. This price is reviewed from time to time
and the acquisition proceeds on the basis of
acquiring the total lands at the average price
previously determined.

It is probably fair to suggest that the acquisition
process turned out to be considerably more diffi-
cult than the government had hoped. To illustrate
this, we would like to present several examples of
the difficulties that can arise. Our purpose here
is not to embarrass OHC but simply to show that
theoretical advantages can turn into practical
nightmares.

On June 6th, 1973, the Ministry of Treasury, Econo-
mics and Intergovernmental Affairs published the
Parkway Belt West Study which identified the South
Milton area as a site for future urban growth. In
December 1973, Ontario Housing Corporation began
acquisition of 2,300 acres of land in the southeast
portion of the present town of Milton. The pro-
vince believed that the Parkway Belt West Study
would hasten land speculation in the Oakville-
Burlington area and believed it essential "to
acquire as quickly as possible, sufficient land to
avoid the pattern of future land speculation".
(Legislature of Ontario Debates, Nov. 14, 1974).

The Minister of Housing stated that "Part of our strategy was to cool out the speculative land activity".

On October 18th, 1973 the director of land acquisition for OHC made a preliminary assessment of the South Milton area and warned for a number of reasons that "the assembly of land would be abnormally difficult and costly if the voluntary purchase route is attempted". (Mr. S. C. Proctor, O.H.C. Review Comments, Oct. 18, 1973). After discussions with senior O.H.C. officials, Mr. Proctor was instructed to meet with officials of Gibson Willoughby Ltd. and on November 13th, 1973, an agreement was signed with this real estate firm to act on the government's behalf in the assembly of up to 4,000 acres of land. On November 23rd, a maximum of $3,000 per acre was established for acquisition till such time as the figure was revised. On December 19th, Gibson Willoughby was instructed to begin raising the offer. General approval was obtained by O.H.C. from the government to acquire sufficient lands at a price not to exceed $7,000 an acre.

In determining the prices to be paid, "the formal appraisal mechanism was replaced by a study of land prices prevailing in the area and consideration of future trends". (Legislature of Ontario Debates, Nov. 14, 1974). Gibson Willoughby Ltd. had indicated through a blanket evaluation that the properties in the assembly area were worth $6,000 an acre in October, 1973.

The government's agents bought at least seven parcels of land from five companies (Bonnydown Ltd., Cedar Heights Construction Ltd., Loring Developments Ltd., Arrowdale Developments Ltd., Moccassin Trail Developments Ltd.) with the same principal directors which provided speculative profits to the companies in excess of $1 million. A detailed examination by the Task Force showed that the five companies purchased most of the properties at roughly $3,000 per acre less than five months before the properties were offered to Ontario Housing Corporation for $5,500 per acre. While the government's agents had indicated through a blanket evaluation in October 1973 that the properties in the area were worth $6,000 - $8,000 per acre, the companies concerned were able to acquire properties at that time for roughly half of that price which they in turn sold to the government agents.

The government agents first met with Mr. Freedman of Bonnydon Ltd. on December 12th, 1973 who rejected an offer of $4,500 an acre for a parcel of land.

On December 17th, he indicated that he had 400
acres for sale at $5,500 an acre, and would consult
with other persons and groups who might sell at
this price. On January 11th, 1974, Mr. Freedman
indicated he could deliver approximately 1,250
acres at $5,500 an acre, but was only prepared to
sell the entire package and not individual parts
of the package.

It is apparent from these transactions that the
government land assembly was not kept secret and
middlemen were allowed to move in and option
property which the government bought from them a
few months later at greatly inflated prices. One
group of companies was allowed to make a profit of
over a million dollars within a few months without
committing any funds of their own for improvement
of the properties.

A second example of difficulties of this type
involving large scale land assemblies can be drawn
from Ottawa. In January 1972, O.H.C. undertook a
survey of need for a land assembly in Ottawa. By
August 1972, purchases were being made but no
public announcement was made until January 11, 1973.
The land assembly was to include approximately
5,000 acres of land in the Township of Gloucester,
about 10 miles southeast of the centre of Ottawa.
The land was to provide the basis for a new
satellite city of approximately 100,000 persons.

Although the land assembly scheme only became
public knowledge on the date of the announcement on
January 11, 1973, persons living in that rural area
were likely aware that a land assembly was taking
place. This hypothesis seems to be confirmed
through an analysis of O.H.C. purchase prices con-
ducted by the Task Force. The first set of agree-
ments in August 1972 ranged from $720 to $1,074
per acre and averaged $866 per acre. In October
the range was $1,092 to $3,090 per acre with an
average of $1,692. By December prices had reduced
somewhat with a range of $1,070 to $1,700 and an
average of $1,214.

A comparison of O.H.C. purchases with non-O.H.C.
transactions in the same area indicates that O.H.C.
created an artificial market area within the limits
of the proposed satellite city which greatly
increased the value of the lands therein. There
are several examples of how Ontario Housing Corpor-
ation paid greatly inflated prices for land during
the assembly. Some of the most striking examples
are shown in Figure 14.4.

FIGURE 14.4

PURCHASES BY ONTARIO HOUSING CORPORATION

TOWNSHIP OF GLOUCESTER (OTTAWA REGION)

	Purchased by Private Agent	Purchased by OHC
Parcel A 211.5 acres	October 1972 $ 283.57/acre	May 1973 $ 1,606.00/acre
Parcel B 37.5 acres	October 1972 $ 347.00/acre	April 1973 $ 1,692.00/acre
Parcel C 24 acres	April 1971 $ 384.30/acre	July 1973 $ 1,611.00/acre
Parcel D 35 acres	August 1972 $ 775.84/acre	February 1973 $1,593.00/acre
Parcel E 31 acres	June 1971 $ 482.37/acre	October 1973 $ 1,799.00/acre
Parcel F 26.5 acres	September 1971 N/A	March 1973 $ 1,323.00/acre
Parcel G 36 acres	July 1972 $ 775.00/acre	February 1973 $ 1,593.00/acre

SOURCE: Task Force Research Studies Volume, Chapter 14.

211-1/2 acres purchased in October 1972 for $283.57 per acre were sold eight months later to Ontario Housing Corporation in May 1973 for $1,606 per acre; 37-1/2 acres purchased in October 1972 for $347 per acre were sold to Ontario Housing Corporation nine months later, in April 1973, for $1,692 per acre; 24 acres purchased in April 1971 for $384.30 per acre were sold to Ontario Housing Corporation within 27 months in July 1973, for $1,611 per acre; 36 acres purchased in August 1972 for $775.84 per acre were sold to Ontario Housing Corporation six months later, in February 1973, for $1,593; 31 acres purchased in June 1971 for $482.37 per acre were sold to Ontario Housing Corporation 28 months later, in October 1973, for $1,799 per acre; 26-1/2 acres purchased in September 1971 were sold to Ontario Housing Corporation 16 months later in March 1973 for $1,323 per acre.

Regarding Parcel G, a Roger and Lise Pilon sold 36 acres to O.H.C. for $1,593 an acre in February 1973. They had bought the land in July 1972 for $775 an acre. The same Roger and Lise Pilon then went just outside the South East City site and acquired an additional 25 acres for only $775 an acre in April 1973 right after the sale to O.H.C.

A Philip and Norma Karam sold 42.8 acres to O.H.C. on October 1, 1973 for $1,905 per acre; but they only received $1,035 per acre from the National Capital Commission 10 months later as compensation for its expropriation of part of their lands situated directly across the Highway from the 42.8 acres they had sold to O.H.C. A court case arose directly out of this discrepancy between the higher price freely offered by O.H.C. and the lower price which the National Capital Commission was prepared to pay on its compulsory expropriation for identical lands. The lands were identical inasmuch as the plaintiff, Mr. Philip Karam, had purchased one parcel of some 174 acres in 1959; in 1968 the Ontario Department of Highways expropriated 35 acres for building Highway No. 417 through the property, leaving 45 acres (less four small building lots) to the west of the highway which were acquired by O.H.C. for $1,905 per acre and 89 acres out of the same parcel east of the highway which (together with other contiguous lands subsequently bought by Mr. Karam) the National Capital Commission expropriated at $1,035 per acre.

The case of Philip Karam and Norma Karam versus the National Capital Commission was heard by the Trial Division of the Federal Court of Canada. Based largely on the higher price paid by O.H.C., the

Karams objected to the lower price established by
the National Capital Commission. The real estate
brokers and appraisers testified concerning the
South East City O.H.C. land purchases that an
artificial market was created within the city site
which resulted in greatly inflated land prices.
They based their opinion on the rapid acceleration
of prices which they considered abnormal and also
on the large discrepancies in prices paid by
Ontario Housing Corporation in the area itself,
where very high prices were paid for lands of
considerably inferior value to that of other lands
obtained at much lower prices. Mr. Justice Addy
found, in part:

> "It is evident, when examining the sales
> of land adjacent to South East City
> immediately previous to and during the
> period of the land assembly, that the agents
> for O.H.C. in the majority of the cases must
> have paid a much higher price per acre than
> the actual value at the time when one com-
> pares their purchases to other land purchases
> in the immediate vicinity. This can only be
> attributed to the artificially enhanced
> price caused by the joint announcement of
> the 11th of January, 1973 and by the activi-
> ties pertaining to the land assembly."

> "It is interesting to note that the price
> paid subsequent to the announcement increased
> most dramatically."

Ontario Housing Corporation has also faced
difficulties in establishing a permanent lot dis-
posal policy. A basic issue is that lots sold
below market value result in a substantial windfall
gain for the lucky purchasers, who must be deter-
mined by some rationing method such as a lottery.
In response to this problem, resale controls were
placed on houses built on lots leased or purchased
by an Agreement of Sale from August 1967 to June
1973. Beginning in June 1973, the lease was modi-
fied so that the land could be purchased any time
after five years, but only at the market value when
the option was exercised.

Rapidly rising land prices, however, brought a con-
cern by lessees that the purchase price could rise
continually beyond their reach. This brought a
policy change in August, 1975 which allowed the
land and house to be purchased at the same time
subject to two mortgages. The first mortgage is on
the house and the second mortgage covers the full
market value of the land. The first purchaser
makes payments on the land based only on the Govern-

ment's acquisition and development costs (similar to the land lease). The difference between this government land cost and the full market value of the land becomes due in 35 years easing the burden of initial high land costs while maintaining the HOME Plan as a full recovery program.

A dramatic change in policy was announced in March, 1977 when the Ontario government decided to abandon its direct role in the production and sale of lots. Experience had presumably led the government to believe that this method was inferior to direct subsidization of the home buyer. Accordingly, the province will now gradually sell off its land at market value (some at huge profits) and offer direct grants to qualified home buyers. The new plan will essentially integrate the HOME plan with the federal AHOP plan.

E. The Irrelevance of Public Ownership for Short-Run Housing Price Fluctuations

Chapter 4 of this report presented a detailed argument as to why large changes in the production of new housing cannot have significant effects on housing prices in the short run. We have applied this argument in a number of places to suggest that monopolistic developers, restrictive approval processes, rising servicing costs, municipal resistance to development, and citizen resistance to development did not cause the 1972 - 1975 boom.

In this chapter, we would like very briefly to put the same principle another way: government ownership of land could have done little to prevent the housing price boom. Of the 25 areas for which detailed information was presented in Chapter 2 and in the Appendix, six have a high degree of government ownership of undeveloped land. These six areas are listed in Figure 14.5 and percentage changes in three statistics are presented for each area: NHA lot prices, MLS average dwelling prices and NHA average dwelling prices. The average of each statistic for the six areas is then compared to the average for all 25 areas.

Figure 14.5 demonstrates precisely what our earlier theory would predict: government ownership and/or development made virtually no difference to overall urban housing prices during the boom years. The NHA housing series was a tiny bit lower in the six areas while the MLS series increased 10% more in the six areas due basically to large price increases in Regina and Saskatoon. The Task Force does not regard any of the differences as particularly significant.

There is no empirical evidence to show that in practice, government ownership had a significant

FIGURE 14.5

AN ILLUSTRATION OF THE IRRELEVANCE OF PUBLIC VERSUS

PRIVATE OWNERSHIP FOR SHORT-RUN HOUSING PRICE FLUCTUATIONS

Urban Areas with High Government Ownership	Percentage Change, 1972-1975		
	NHA Lot[1] Prices	MLS Dwelling[2] Prices	NHA Dwelling[3]
Regina	80.7	99.1	75.1
Saskatoon	59.2	101.5	71.7
Winnipeg	154.9	71.5	81.6
Ottawa	115.3	52.9	64.0
Halifax	15.9	44.9	26.7
Saint John	84.3	68.7	17.8
Average	85.1	73.0	56.2
Average of 25 areas	86.8	62.3	57.4
Difference	-1.7%	+10.7%	-1.2%

[1]SOURCE: Table A1 - Appendix 1

[2]SOURCE: Table A5 - Appendix 1

[3]SOURCE: Table A8 - Appendix 1

moderating effect during the boom. As in the case of other supply side factors examined above, the effects of government programs are to be found in long-run price <u>levels</u> rather than in short-run price <u>fluctuations</u>.

F. Similarities and Differences

These three case studies suggest a number of conclusions. First, we have mixed evidence as to whether or not government corporations can purchase land as cheaply as private companies are able to do. MHRC was able to buy at market value while OHC seemed to be unable to do so, at least in the two OHC assemblies we examined. SHC on the other hand, appeared to have a strong record in this regard. While we hesitate to generalize here, a basic difference might have been that OHC attempted large scale assemblies in specific locations while MHRC and SHC attempted smaller purchases with more locational flexibility. Perhaps the lesson is that it is large scale assembly rather than government ownership <u>per se</u> that caused problems in Ontario.

Second, there is no evidence that government purchases have resulted in decreasing speculation and raw land prices. Indeed, evidence for Manitoba and Ontario suggests that government activity may have increased raw land prices, particularly when large purchases were made without plans for development. This not uncommon policy simply results in a decrease of raw land supply without any corresponding increase in lot production.

Third, the record of government corporations on the timing of purchases is poor. Evidence from the three case studies suggest that government corporations were heavy purchasers during the boom years and thus did nothing to moderate price increase.

Finally, a simple empirical example was constructed to show that government ownership of land made little difference to the degree of urban housing price increases during the boom. This is, of course, predicted by the stock-flow argument that has come up repeatedly in this Report. Government corporations have a sharply limited ability to control short-run price fluctuations due, again, to the fact that the existing stock of housing dominates prices in the short run.

Land and housing markets are complex and any attempt to summarize in a few pages what the Task Force has learned is difficult indeed. Yet as research proceeded over the months, a small number of important ideas seemed to reappear again and again. Collectively, these ideas offer tremendous explanatory power about our recent past and define the factors that will determine the near future. Twelve points summarize these findings.

(1) The land and housing price boom that occurred in virtually all large urban areas outside Quebec in 1972-75 was essentially a phenomenon of asset revaluation primarily caused by increases in demand rather than by restrictions in supply. Inflationary expectations, rapidly rising incomes, liberal mortgage financing, and demographic factors all contributed. The then present price of land as an asset underwent a dramatic revaluation as both potential home buyers and existing owners revised their expectations about the future value of land.

(2) Several alternate theories which attempt to explain the 1972-75 boom essentially assume that it was caused by restrictions on the production of new housing. These theories, which differ only to the extent that different groups are blamed for the restrictions (e.g., developers, municipalities), embody a fundamental misunderstanding of the housing market. In any given year, the production of new housing amounts to only about three or four percent of the existing stock and thus even a 50 percent cut in the production rate of new housing would only amount to about a two percent cut in the overall supply of housing in the first year. Prices in the short run are thus largely determined by the stock of existing housing. Production restrictions would be ultimately manifested in higher long-run price levels rather than in the rapid short-run price fluctuations which characterize the price boom of 1972-75.

(3) There is no evidence to support the monopoly developer theory which asserts that ownership of undeveloped land is concentrated in the hands of a small number of powerful developers. Land ownership is only concentrated in urban areas where public ownership is dominant: Ottawa, Saskatoon, Regina, and Halifax. Only in the case of Ottawa did we find some disagreement as noted in the text.

(4) The influence of various land taxes, income tax provisions (especially the non-deductibility of carrying charges) and municipal lot levies on land development and lot prices has probably been minor up to the present time. These factors along with

the requirement that developers install all munici-
pal services, however, have acted to cause huge
increases in the financial resources needed to
profitably participate in land development. In the
future, therefore, it seems possible that these
factors could tend to eliminate small development
firms and thus lead to a significant increase in
concentration in the development industry. Thus,
while industrial concentration is not an existing
problem, it may become a significant problem in the
near future in the absence of government-initiated
changes to the above factors.

(5) Rising lot servicing costs were closely rela-
ted to rising lot prices across the country during
the sixties but not during the seventies when lot
prices generally appreciated at a rate far faster
than servicing costs. Now that the boom conditions
have ended, servicing costs may once again come to
play a prominent role in determining lot price
movements and the differences in lot prices across
the country. Future servicing costs will depend in
particular on municipal and provincial acceptance
of new servicing techniques. It appears that the
past decade has been one of resistance to new
techniques that can potentially save several thous-
and dollars per lot.

(6) The sharp housing price increases that occurr-
ed across Canada from 1972 onwards caused, in most
areas, even larger proportionate increases in
serviced-lot prices. However, the speed with which
(not necessarily the level at which) lot prices
responded to rising house prices and an increased
demand for lots, varied enormously from city-to-
city. Where officials were willing and able to
speed up the rate at which subdivision applications
were approved, lot-price increases lagged behind
house-price increases. Where the approvals process
was slow to respond, or where other factors such as
municipal reorganization by provincial governments
delayed approvals, serviced-lot shortages forced
lot prices up more rapidly.

(7) To permanently reduce the price of land in the
face of strong demand, it will be necessary for
planners and municipalities to permanently increase
the rate at which lots are produced. We are con-
cerned, however, that various planning concepts
such as contiguous or sequential development
policies, greenbelts and higher servicing stand-
ards - all of which may be warranted - will lead to
a more restrictive subdivision approvals process
and higher house prices. One difficulty is that
the economic conditions faced by private and public
sector development corporations may not mesh with

established planning principles. Governments may
lay down these planning principles, but economic
reality decides the type and timing of actual
development.

(8) An increasingly common type of supply restric-
tion and hence determinant of long-run lot prices
seems to be municipal resistance to new development
on the grounds that new development does not pay
its way. To the extent this is true, the primary
explanation lies in a combination both of political
fragmentation and of a property tax which in most
municipalities is structured such that residential
properties are undertaxed while commercial and
industrial properties are overtaxed relative to
their respective uses of public services. The
result of this bias in the tax system is that new
development may be fiscally unprofitable in munici-
palities where residential growth is not accompan-
ied by corresponding commercial and industrial
growth, especially in bedroom communities bordering
large centre cities. It is not new development per
se that causes the problem but rather the structure
of the property tax and political fragmentation
which are to blame. Municipal corporations, of
course, represent existing ratepayers and not poten-
tial new residents. Thus there is no incentive to
change the property tax structure in order to make
new residential development pay its way in these
communities since such a change would be harmful to
existing residents. Municipal resistance to new
development is thus likely to continue or increase
in the absence of changes to the property tax.

(9) A second increasingly common type of supply
restriction and determinant of long-run lot prices
arises from resistance to development on the part
of existing residents in many municipalities.
Ratepayers groups are often coming to the recogni-
tion that they have a vested interest in opposing
or charging dearly for new development on various
grounds. Such opposition is often highly effective
since the potential residents who need housing
have little or no political representation. This
type of supply restriction seems likely to grow
across the country in future years unless some
level of government provides representation for
the interests of the potential home buyer. Ironic-
ally, citizen resistance is often directed at
medium or high density developments, low and medium
income housing and infill developments, which are
precisely the types of projects that public author-
ities are currently trying to encourage.

(10) As a number of analysts have suspected, the
land development industry enjoyed extremely high

profits during the early and mid 1970's. The fact
that the demand boom of this period was not correc-
tly anticipated meant that prices paid for land
purchased by companies during the 1950's and 1960's
did not accurately reflect future values. On the
other hand, it appears that projects based on land
bought many years prior to development did not earn
returns significantly different from returns earned
by projects based on land bought only a few years
prior to development. In other words, the evidence
does not support the view that profit rates were
higher the longer the land was banked by the devel-
oper. Similarly, large projects were not found to
be more profitable than small projects. In fact,
there may be a small negative relationship between
size and profits. Both results seem to contradict
conventional wisdom.

(11) In three case studies conducted by the Task
Force, no evidence was found to indicate that large
scale government land assembly and lot servicing
programs have been able to mitigate sharp price
increases during the early 1970's. Indeed, the
three corporations studied, Manitoba Housing and
Renewal Corporation, Saskatchewan Housing Corpora-
tion and Ontario Housing Corporation, seemed to buy
heavily during the upside and the top of the boom.
Further, MHRC and OHC generally bought without
immediate plans for development, thus decreasing
land supply without increasing lot production.
Evidence from the various case studies on their
ability to purchase land at market value was mixed.
MHRC seemed to be quite successful at purchasing at
market prices while OHC seemed to end up paying
more for new land relative to the amounts paid by
private development firms. Saskatchewan Housing
Corporation seemed to pay less than private firms.
One important difference was that OHC attempted
large scale assemblies in specific locations while
MHRC and SHC attempted smaller purchases with more
locational flexibility. The lesson is likely that
large scale land assembly rather than government
ownership per se leads to difficulties in acquiring
land at market value.

(12) Land development is likely to become an
increasingly risky business in the near future due
to lower growth rates of population and income,
huge increases in capital and carrying costs, and
the increased level of government intervention and
citizen participation in the development process.
Any factor that increases the level of risk in land
development will increase the average profit margin
required if business is to be willing to partici-
pate in land development. Increased risk also
favours large, integrated firms over small firms

and thus may be another factor that will contribute
to increased industry concentration in the future.
This is not, of course, to suggest that governments
and ratepayers groups do not have a very important
role to perform in the land market. It is only to
point out that government activities may at times
indirectly contribute to higher land prices and
industry concentration.

CANADIAN SERVICED LOT

AND

HOUSING PRICES

Average Cost per Foot Frontage of Fully Paid, Fully Serviced Lots for New Housing Financed Under the National Housing Act

	1966 $	1967 $	1968 $	1969 $	1970 $	1971 $	1972 $	1973 $	1974 $	1975 $
Vancouver	63.60	63.60	82.34	106.91	123.74	140.58	153.09	188.91	324.83	348.12
Victoria	60.61	55.64	76.97	119.68	115.38	115.02	114.59	150.21	281.25	329.64
Calgary	64.09	68.87	77.62	90.42	98.17	110.38	123.76	145.30	185.21	250.59
Edmonton	77.56	79.01	84.97	92.72	102.34	116.18	119.17	141.98	174.44	238.14
Regina	57.13	58.52	60.80	65.67	55.59	67.42	70.00	78.52	87.33	126.51
Saskatoon	49.88	50.74	57.24	69.39	54.74	66.17	69.85	75.29	80.83	111.21
Winnipeg	72.91	76.26	77.53	80.50	83.82	86.20	96.82	119.99	193.12	246.70
Toronto	128.78	148.73	158.62	181.33	205.63	232.84	232.28	279.65	447.12	473.76
Hamilton	112.29	127.80	152.47	185.68	209.29	210.11	234.14	272.43	371.43	552.50
Ottawa	93.89	89.55	91.90	108.64	121.79	126.50	148.09	209.64	199.36	318.95
London	68.36	73.86	88.25	106.18	106.16	114.14	122.54	138.26	232.10	261.86
Kitchener	77.86	88.45	106.64	126.15	132.01	141.05	157.51	185.47	300.01	341.37
Windsor	83.57	82.83	99.02	108.40	117.06	123.24	137.98	154.87	185.06	195.81
St. Catharines	75.04	91.65	96.43	114.66	123.23	128.21	128.81	154.77	210.82	242.05
Sudbury	57.90	42.97	55.35	81.21	109.48	118.57	143.19	175.96	179.50	171.32
Kingston	67.14	70.54	79.21	95.44	101.46	107.57	116.70	130.98	207.88	264.75
Peterborough	51.07	58.04	67.83	75.00	84.88	94.36	113.01	135.71	206.88	216.09
Thunder Bay	65.98	71.99	74.25	96.89	105.56	121.50	154.81	185.77	230.37	275.06
Sault Ste. Marie	52.09	52.85	56.51	60.19	61.32	71.86	86.19	107.62	140.57	186.48
Montreal	39.54	39.33	37.03	44.24	59.57	38.81	30.65	27.78	26.39	45.37
Quebec City	32.83	25.00	35.00	35.90	30.52	33.89	45.01	49.30	49.11	51.69
Sherbrooke	24.78	29.61	N/A	43.89	27.00	23.05	36.12	31.22	32.04	30.66
Halifax	57.51	51.62	53.81	64.35	75.20	85.05	93.89	72.55	82.11	108.80
Saint John	29.41	32.35	32.81	38.20	42.46	49.47	56.55	78.06	99.17	104.20
Moncton	41.61	43.69	53.23	46.09	42.81	58.77	73.58	79.96	99.74	103.53

NOTE: 1976 data not available

SOURCE: Central Mortgage and Housing Corporation

Average Cost Index (1971= 100) Per Frontage Foot of Fully Paid, Fully Serviced

Lots for New Housing Financed under the National Housing Act

	1966 $	1967 $	1968 $	1969 $	1970 $	1971 $	1972 $	1973 $	1974 $	1975 $
Vancouver	45.0	45.2	58.6	76.0	88.0	100.0	108.9	134.4	231.1	247.6
Victoria	52.7	48.4	66.9	104.1	100.3	100.0	99.6	130.6	244.5	286.6
Calgary	58.1	62.4	70.3	81.9	88.9	100.0	112.1	131.6	167.8	227.0
Edmonton	66.8	68.0	73.1	79.8	88.1	100.0	102.6	122.2	150.1	205.0
Regina	84.7	86.8	90.2	97.4	82.5	100.0	103.8	116.5	129.5	187.6
Saskatoon	75.4	76.7	86.5	104.9	82.7	100.0	105.6	113.8	122.2	168.1
Winnipeg	84.6	88.5	89.9	93.4	97.2	100.0	112.3	139.2	224.0	286.2
Toronto	55.3	63.9	68.1	77.9	88.3	100.0	99.8	120.1	192.0	203.5
Hamilton	53.4	60.8	72.6	88.4	99.6	100.0	111.4	129.7	176.8	263.0
Ottawa	74.2	70.8	72.6	85.9	96.3	100.0	117.1	165.7	157.6	252.1
London	59.9	69.1	77.3	93.0	93.0	100.0	107.4	121.1	203.3	229.4
Kitchener	55.2	62.7	75.6	89.4	93.6	100.0	111.7	131.5	212.7	242.0
Windsor	67.8	67.2	80.3	88.0	95.0	100.0	112.0	125.7	150.2	158.9
St. Catharines	58.5	71.5	75.2	89.4	96.1	100.0	100.5	120.7	164.4	188.8
Sudbury	.48.8	36.2	46.7	68.5	92.3	100.0	120.8	148.4	151.4	144.5
Kingston	62.4	65.6	73.6	88.7	94.3	100.0	108.5	121.8	193.3	246.1
Peterborough	54.1	61.5	71.9	79.5	90.0	100.0	119.8	143.8	219.2	229.0
Thunder Bay	54.3	59.3	61.1	79.7	86.9	100.0	127.4	152.9	189.6	226.4
Sault Ste. Marie	72.5	73.5	78.6	83.8	85.3	100.0	122.7	149.8	195.6	259.5
Montreal	101.9	101.3	95.4	114.0	153.5	100.0	79.0	71.6	68.0	116.9
Quebec City	96.9	73.8	103.3	105.9	90.1	100.0	132.8	145.5	144.9	152.5
Sherbrooke	107.5	128.5	N/A	190.4	117.1	100.0	156.7	135.4	139.0	133.0
Halifax	67.6	60.7	63.2	75.7	88.4	100.0	110.4	85.3	96.5	127.9
Saint John	59.5	65.4	66.3	77.2	85.8	100.0	114.3	157.8	200.5	210.6
Moncton	70.8	74.3	90.6	78.4	72.8	100.0	125.2	136.1	169.7	176.2

SOURCE: Derived from Table A1

Average Dollar Value Per MLS Transaction for Selected Cities

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Vancouver	15200	17836	20596	23939	24239	26472	31465	41505	57861	64472	68694
Victoria	13144	15250	17624	22606	22187	23620	25610	32373	45900	52301	60062
Calgary	15556	16782	19445	22510	22771	23641	25373	31256	40120	51443	70249
Edmonton	14893	16093	18870	21741	24743	24500	25521	29699	36214	45808	60956
Regina	12411	13783	14529	15971	17249	16572	17220	20306	26507	34292	41955
Saskatoon	12910	14899	16488	16849	16569	16461	17177	19802	24979	34616	44687
Winnipeg	13770	13878	14870	16469	17470	18452	19579	21573	27619	33501	39668
Toronto	21950	24682	27637	29931	30141	31822	34076	44105	56121	58181	62805
Hamilton	17005	19435	21767	23369	24363	24759	27434	33615	42528	45525	50223
Ottawa	21521	21740	24537	27293	26890	29619	32303	39309	47231	49389	54925
London	13831	15971	17171	19042	18387	20347	22837	26458	36178	40874	44502
Kitchener	20938	23504	27983	28176	28390	30813	29005	36982	46052	46018	50195
Windsor	14927	16118	18890	20866	21418	21913	22484	25099	29853	33981	38646
St. Catharines	16360	17637	18202	19432	19697	19578	22515	25838	31060	36151	38591
Sudbury	16026	19019	18885	20984	21834	26454	25847	24139	29421	33463	36818
Kingston	17689	17442	21391	22038	23290	23404	24381	29978	37907	40230	43834
Peterborough	13706	14662	15059	18631	19958	18728	21155	24753	35615	35701	43164
Thunder Bay	10903	12349	13305	14314	16285	16944	20230	25376	31859	34022	43694
Sault Ste. Marie	13607	14024	15581	15689	16836	23376	25985	25333	31553	33637	36472
Montreal	23809	24758	25089	23702	23144	23693	25030	26385	33368	35467	39783
Quebec City	18623	23047	23502	23540	30778	27854	38190	34597	30083	29586	34655
Sherbrooke	20205	16189	18358	19800	20750	22676	26727	22908	29153	31895	30939
Halifax	18039	19144	19016	23266	23229	23904	25003	26586	31144	36187	41438
Saint John	12788	14528	15035	15914	15933	19017	20488	23723	30308	34569	38484
Moncton	13874	13392	17776	19102	19868	21380	22658	24246	28237	32074	33586

Index of Average Cost Per MLS Transaction

(1971 = 100)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Vancouver	57.4	67.4	77.8	90.4	91.6	100.0	118.9	156.8	218.6	243.5	259.5
Victoria	55.6	64.6	74.6	95.7	93.9	100.0	108.4	137.1	194.3	221.4	254.3
Calgary	65.8	71.0	82.3	95.2	96.3	100.0	107.3	132.2	169.7	217.6	297.1
Edmonton	60.8	65.7	77.0	88.7	101.0	100.0	104.2	121.2	147.8	187.0	248.8
Regina	74.9	83.2	87.7	96.4	104.1	100.0	103.9	122.5	160.0	206.9	253.2
Saskatoon	78.4	90.5	100.2	102.4	100.7	100.0	104.3	120.3	151.7	210.3	271.5
Winnipeg	74.6	75.2	80.6	89.3	94.7	100.0	106.1	116.9	149.7	181.6	215.0
Toronto	69.0	77.6	86.8	94.1	94.7	100.0	107.1	138.6	176.4	182.8	197.4
Hamilton	68.7	78.5	87.9	94.4	98.4	100.0	110.8	135.8	171.8	183.9	202.8
Ottawa	72.7	73.4	82.8	92.1	90.8	100.0	109.1	132.7	159.5	166.7	185.4
London	68.0	78.5	84.4	93.6	90.4	100.0	112.2	130.0	177.8	200.9	218.7
Kitchener	68.0	76.3	90.8	91.4	92.1	100.0	94.1	120.0	149.5	149.3	162.9
Windsor	68.1	73.6	86.2	95.2	97.7	100.0	102.6	114.5	136.2	155.1	176.4
St. Catharines	83.6	90.1	93.0	99.3	100.6	100.0	115.0	132.0	158.6	184.7	197.1
Sudbury	60.6	71.9	71.4	79.3	82.5	100.0	97.7	91.2	111.2	126.5	139.2
Kingston	75.6	74.5	91.4	94.2	99.5	100.0	104.2	128.1	162.0	171.9	187.3
Peterborough	73.2	78.3	80.4	99.5	106.6	100.0	113.0	132.2	190.2	190.6	230.5
Thunder Bay	64.3	72.9	78.5	84.5	96.1	100.0	119.4	149.8	188.0	200.8	257.9
Sault Ste. Marie	58.2	60.0	65.7	67.1	72.2	100.0	111.2	108.4	135.0	143.9	156.0
Montreal	100.5	104.5	105.9	100.0	97.7	100.0	105.6	111.4	140.8	149.7	167.9
Quebec City	66.9	82.7	84.4	84.5	110.5	100.0	137.1	124.2	108.0	106.2	124.4
Sherbrooke	89.1	71.4	81.0	87.3	91.5	100.0	117.9	101.0	128.6	140.7	136.4
Halifax	75.5	80.1	79.6	97.3	97.2	100.0	104.6	111.2	130.3	151.4	173.4
Saint John	67.2	76.4	79.1	83.7	83.8	100.0	107.7	124.7	159.4	181.8	202.4
Moncton	54.9	62.6	83.1	89.3	92.9	100.0	106.0	113.4	132.1	150.0	157.1

SOURCE: Derived from Table A3

Percent Changes in MLS Dwelling Prices

	Percent Change 1966-1969		Percent Change 1969-1972		Percent Change 1972-1975	
	Nominal	Real	Nominal	Real	Nominal	Real
Vancouver	57.5	39.8	31.4	18.0	104.9	55.0
Victoria	72.0	52.6	13.3	1.7	104.2	54.5
Calgary	44.7	28.4	12.7	1.2	102.7	53.3
Edmonton	46.0	29.5	17.4	5.4	79.5	35.8
Regina	28.7	14.2	7.8	-3.2	99.1	50.6
Saskatoon	30.5	15.8	1.9	-8.5	101.5	52.4
Winnipeg	19.6	6.1	18.9	6.7	71.1	29.4
Toronto	36.4	21.0	13.8	2.2	70.7	29.1
Hamilton	37.4	21.9	17.4	5.4	65.9	25.5
Ottawa	26.8	12.5	18.4	6.3	52.9	15.7
London	37.7	22.2	19.9	7.6	79.0	35.4
Kitchener	34.6	19.4	2.9	-7.6	58.7	20.0
Windsor	39.8	24.0	7.8	-3.2	51.1	14.3
St. Catharines	18.8	5.4	15.9	4.0	60.6	21.5
Sudbury	30.9	16.1	23.2	10.6	29.5	-2.0
Kingston	24.6	10.6	10.6	-0.7	65.0	24.8
Peterborough	35.9	20.6	13.5	1.9	68.8	27.7
Thunder Bay	31.3	16.5	41.3	.26.8	68.2	27.2
Sault Ste-Marie	15.3	2.3	65.6	48.7	29.4	-2.1
Montreal	-0.4	-11.6	5.6	-5.2	41.7	7.2
Quebec City	26.4	12.2	62.2	45.6	-22.5	-41.4
Sherbrooke	-2.0	-13.0	35.0	21.2	19.3	-9.8
Halifax	29.0	14.5	7.5	-3.5	44.7	9.5
Saint John	24.4	10.4	28.7	15.5	68.7	27.6
Moncton	37.7	22.2	18.6	6.5	41.6	7.1
MEAN	31.3	16.5	20.5	8.1	62.3	22.7

SOURCE: Derived from Table A3 and CMHC, Canadian Housing Statistics 1976, Table 106.

TABLE A6

Prices of Single Detached Dwelling Units Financed
Under the National Housing Act

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Vancouver	19554	20687	21949	24477	25591	27357	30474	36067	45766	47790	48246
Victoria	20732	20848	23157	27760	25969	27918	28642	32932	50417	58216	66272
Calgary	17980	18980	20066	22753	22590	23893	24898	29281	37616	46475	59999
Edmonton	17954	18967	19796	22897	25161	25712	27414	30924	38885	48510	61428
Regina	16549	17299	17832	21141	16050	16807	19032	22802	27458	33316	40571
Saskatoon	16391	16988	17802	20721	16947	16475	17573	19937	23663	30177	37430
Winnipeg	18297	18622	19674	22489	23041	21583	23691	27176	36520	43014	51352
Toronto	23056	24878	25153	28644	29914	32646	32035	36218	62254	57098	57417
Hamilton	19947	21341	24236	29144	29322	28429	31192	35370	41575	50956	51138
Ottawa	19829	19973	18059	30553	30793	30955	31953	36813	49489	52405	59453
London	16675	18028	19236	24307	23760	25344	26221	29002	35402	36173	42135
Kitchener	18907	20544	20449	23242	24801	25122	26404	30681	45748	46242	50663
Windsor	21774	22620	23144	27342	29165	29185	29904	30925	38213	37852	36162
St. Catharines	19395	20262	20358	24963	26229	26253	27329	31071	39630	41836	47497
Sudbury	19168	18357	19680	25031	25672	26580	33146	38049	36017	37377	40637
Kingston	19063	19751	22899	26356	27627	26217	28820	32907	44721	43896	46666
Peterborough	16583	18442	20521	23995	24740	23859	25728	31426	40463	42343	49526
Thunder Bay	17452	18798	20210	24443	24125	25871	29887	36025	44585	49446	60281
Sault Ste Marie	17026	17917	19213	21363	22628	23757	27038	28980	32936	41801	48860
Montreal	18066	15901	16866	17015	17432	17834	18596	20686	25826	29584	32178
Quebec City	15708	16502	16617	18347	17337	18060	19720	21402	25564	29557	31797
Sherbrooke	14504	14923	17152	19010	17746	18712	19692	22819	26209	27571	30737
Halifax	16908	17784	20281	24469	24003	27155	27644	28578	29931	35035	35454
Saint John	16410	17597	17272	20301	20451	21226	25900	25559	29845	30508	36691
Muncton	15393	16645	18360	20950	15653	19899	20715	22160	25823	29371	30829

SOURCE: CMHC, Canadian Housing Statistics 1976, Table 91; CMHC, Canadian Housing Statistics
1974, Table 86; CMHC, Canadian Housing Statistics 1972, Table 86; CMHC, Canadian
Housing Statistics 1970, Table 86; CMHC, Canadian Housing Statistics 1969. Table 82;
CMHC, Canadian Housing Statistics 1967, Table 77.

Price Index (1971 = 100) of Single Detached Dwelling Units Financed

Under the National Housing Act

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Vancouver	71.5	75.6	80.2	89.5	93.5	100.0	111.4	131.9	167.3	174.7	176.4
Victoria	74.3	74.7	82.9	99.4	93.0	100.0	102.6	118.0	180.6	208.5	237.4
Calgary	75.3	79.4	84.0	95.2	94.5	100.0	104.2	122.6	157.4	194.5	251.1
Edmonton	69.8	73.8	77.0	89.1	97.9	100.0	106.6	120.3	151.2	188.7	238.9
Regina	98.5	102.9	106.1	125.8	95.5	100.0	113.2	135.7	163.4	198.2	241.4
Saskatoon	99.5	103.1	108.1	125.8	102.9	100.0	106.7	121.0	143.6	183.2	227.2
Winnipeg	84.8	86.3	91.2	104.2	106.8	100.0	109.8	125.9	169.2	199.3	237.9
Toronto	70.6	76.2	77.0	87.7	91.6	100.0	98.1	110.9	190.7	174.9	175.9
Hamilton	70.2	75.1	85.3	102.5	103.1	100.0	109.7	124.4	146.2	179.2	179.9
Ottawa	64.1	64.5	58.3	98.7	99.5	100.0	103.2	118.9	159.9	169.3	192.1
London	65.8	71.1	75.9	95.9	93.8	100.0	103.5	114.4	139.7	142.7	166.3
Kitchener	75.3	81.8	81.4	92.5	98.7	100.0	105.1	122.1	182.1	184.1	201.7
Windsor	74.6	77.5	79.3	93.7	99.9	100.0	102.5	106.0	130.9	129.7	123.9
St. Catharines	73.9	77.2	77.5	95.1	99.9	100.0	104.1	118.4	151.0	159.4	180.9
Sudbury	.72.1	69.1	74.0	94.2	96.6	100.0	124.7	143.1	135.5	140.6	152.9
Kingston	72.7	75.3	87.3	100.5	105.4	100.0	109.9	125.5	170.6	167.4	178.0
Peterborough	69.5	77.3	86.0	100.6	103.7	100.0	107.8	131.7	169.6	177.5	207.6
Thunder Bay	67.5	72.7	78.1	94.5	93.3	100.0	115.5	139.2	172.3	191.1	233.0
Sault Ste. Marie	71.7	75.4	80.9	89.9	95.2	100.0	113.8	122.0	138.6	176.0	205.7
Montreal	1.01.3	89.2	94.6	95.4	97.7	100.0	104.3	116.0	144.8	165.9	180.4
Quebec City	87.0	91.4	92.0	101.6	96.0	100.0	109.2	118.5	141.6	163.7	176.1
Sherbrooke	77.5	79.8	91.7	101.6	94.8	100.0	105.2	121.9	140.1	147.3	164.3
Halifax	62.6	65.5	74.7	90.1	68.4	100.0	101.8	105.2	110.2	129.0	130.6
Saint John	77.3	82.9	81.4	95.6	96.3	100.0	122.0	120.4	140.6	143.7	172.9
Moncton	77.4	83.6	92.3	105.3	78.7	100.0	104.1	111.4	129.8	147.6	154.9

SOURCE: Derived from Table A6

Per Cent Changes in the Cost of Single Detached
Dwellings Financed Under the National Housing Act

	Per Cent Change 1966-1969		Per Cent Change 1969-1972		Per Cent Change 1972-1975	
	Nominal	Real	Nominal	Real	Nominal	Real
Vancouver	25.2	11.1	24.5	11.8	56.8	18.6
Victoria	33.9	18.8	3.2	-7.4	103.3	53.8
Calgary	26.5	12.2	9.4	-1.8	86.7	41.2
Edmonton	27.5	13.1	19.7	7.5	77.0	33.9
Regina	27.7	13.3	-10.0	-19.2	75.1	32.5
Saskatoon	26.4	12.2	-15.2	-23.9	71.7	29.9
Winnipeg	22.9	9.1	5.3	-5.5	81.6	37.4
Toronto	24.2	10.2	11.8	0.4	78.2	34.8
Hamilton	46.1	29.6	7.0	-3.9	63.4	23.6
Ottawa	54.1	36.7	4.6	-6.1	64.0	24.1
London	45.8	29.4	7.9	-3.1	38.0	4.4
Kitchener	22.9	9.1	13.6	2.0	75.1	32.5
Windsor	25.6	11.4	9.4	-1.8	26.6	-4.2
St. Catharines	28.7	14.2	9.5	-1.7	53.1	15.8
Sudbury	30.6	15.9	32.4	18.9	12.8	-14.7
Kingston	38.3	22.7	9.3	-1.9	52.3	15.2
Peterborough	44.7	28.4	7.2	-3.8	64.6	24.5
Thunder Bay	40.1	24.3	22.3	9.8	65.4	25.1
Sault Ste.Marie	25.5	11.4	26.6	13.6	54.6	16.9
Montreal	-5.8	-16.4	9.3	-1.9	59.1	20.3
Quebec City	16.8	3.6	7.5	-3.5	49.9	13.4
Sherbrooke	31.1	16.3	3.6	-7.0	40.0	5.9
Halifax	44.0	27.8	13.0	1.4	26.7	-4.2
Saint John	23.7	9.8	27.6	14.5	17.8	-9.2
Moncton	36.1	20.8	-1.1	-11.2	41.8	7.3
Mean	30.5	15.8	10.3	-1.0	57.4	19.2

SOURCE: Derived from Table A6 and CMHC Canadian Housing Statistics 1976, Table 106.

Lot Cost as a Percentage of Total Cost: New Single Detached

Dwellings Financed Under the National Housing Act

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Vancouver	19.3	19.2	21.5	24.9	27.7	29.9	31.7	34.7	42.9	45.9	47.9
Victoria	14.6	15.6	22.7	25.5	26.1	26.9	27.2	29.8	39.4	39.8	39.2
Calgary	18.5	18.9	20.8	21.6	23.0	24.5	25.4	25.9	26.0	28.3	32.5
Edmonton	19.9	19.6	23.6	23.2	23.4	25.9	25.2	25.7	25.4	27.0	31.2
Regina	11.9	12.3	17.0	16.8	16.4	18.0	17.4	16.9	15.6	17.2	24.3
Saskatoon	13.6	13.8	17.5	19.1	17.3	18.6	18.5	18.5	16.5	18.0	22.0
Winnipeg	16.9	16.7	21.1	20.1	19.9	21.0	21.9	23.4	27.6	30.9	32.2
Toronto	30.8	33.4	33.1	33.7	35.6	37.1	35.9	36.6	31.5	32.7	49.4
Hamilton	26.8	28.1	31.5	32.1	35.8	38.2	37.8	38.7	46.9	41.0	50.8
Ottawa	16.4	17.7	20.0	21.8	23.8	23.7	26.3	30.0	26.4	32.1	30.0
London	19.7	20.7	24.1	24.4	24.3	24.6	25.0	26.3	29.1	32.7	30.4
Kitchener	20.3	22.1	25.2	26.4	26.9	27.9	28.3	29.6	33.1	36.0	34.5
Windsor	19.3	20.2	22.5	21.2	21.5	21.5	23.7	26.5	29.2	28.4	27.3
St. Catharines	22.7	24.0	26.4	27.1	26.4	26.7	26.5	26.8	28.8	31.2	33.1
Sudbury	.16.5	12.8	17.1	17.6	22.7	24.4	24.9	26.1	25.7	26.3	28.9
Kingston	15.5	17.1	21.4	21.2	21.5	24.7	25.1	24.7	26.0	33.1	30.4
Peterborough	15.3	15.0	17.8	16.3	18.6	21.4	22.5	23.6	26.1	25.9	27.6
Thunder Bay	17.7	15.7	19.0	20.0	22.5	24.7	26.6	26.9	28.2	28.6	32.7
Sault Ste. Marie	16.8	16.6	16.9	16.8	16.5	17.6	18.8	21.0	22.6	25.6	29.6
Montreal	14.2	11.9	12.3	11.6	12.7	12.2	11.7	10.3	9.1	9.2	10.0
Quebec City	13.7	14.1	13.8	13.8	13.1	13.4	14.0	13.9	12.1	11.7	12.9
Sherbrooke	10.2	9.8	10.6	10.7	10.9	10.5	11.1	10.7	8.8	7.5	6.8
Halifax	12.0	11.1	17.6	17.5	19.8	20.0	20.5	17.9	16.7	18.6	19.6
Saint John	15.1	14.9	12.8	14.3	16.3	17.5	18.3	18.0	20.9	17.9	17.4
Moncton	13.1	13.3	18.0	16.0	16.8	18.6	20.7	18.6	23.0	21.4	21.7

Listed below are the final terms of reference presented to the Task Force. Following each entry, we have noted which Chapter of Volume Two deals with that entry. The planned Table of Contents for the Task Force Research Studies Volume is also attached for cross-reference in Appendix 3.

TERMS OF REFERENCE FOR

A FEDERAL/PROVINCIAL TASK FORCE ON

THE SUPPLY AND PRICE OF SERVICED RESIDENTIAL LAND

Subject Matter of Task Force Examination

The Task Force will be charged with preparing a Report in six to eight months after approval of the terms of reference. This Report is to present findings and to draw conclusions, rather than to make recommendations. The Report will be made public, in both official languages, immediately after its completion.

The Task Force will examine land markets in each province of Canada. Four types of land markets will be examined:

1. those experiencing very high lot prices (for example, Toronto, Calgary, Edmonton, Ottawa, Vancouver);

2. those where ownership of land by private developers is concentrated (for example, Winnipeg, Ottawa, Calgary);

3. those which have a high degree of public ownership (for example, Regina, Charlottetown); and

4. those where the cost of services is particularly high (for example, Halifax, St. John's).

These markets will be examined for:

A. the proportion of the total price of housing formed by cost of serviced land; (Chapter 2)

B. The component parts of serviced land prices:

   (i) the cost of raw land to the developer; (Chapters 8 and 9)

   (ii) the costs, including the impact of interest rates, of holding raw and serviced land until it is sold or leased; (Chapter 9)

(iii)   the cost of constructing or installing
        services to the raw land;
        (Chapters 8 and 9)

(iv)   the impost and development charges
        imposed by a municipality;
        (Chapters 8, 9 and 11)

(v)   the profits accruing to the developer;
        (Chapter 9)

(vi)   the profits arising from infill rezoning,
        (Chapter 10)

C. The factors causing the level and escalation of
    serviced land prices:

(i)   the form, operation and time frame of
        the development approval process;
        (Chapter 10)

(ii)   effects of various standards of
        engineering, planning and density;
        (Chapters 8 and 10)

(iii)   the control of the supply of serviced
        lots available on the market by
        developers;
        (Chapter 7)

(iv)   the fiscal impact of residential
        development on municipalities;
        (Chapter 11)

(v)   citizen resistance to residential
        development;
        (Chapter 12)

(vi)   the effects of various forms of federal,
        provincial and municipal taxation;
        (Chapter 13)

(vii)   the effects of federal, provincial and
        municipal land programs of the
        respective housing agencies;
        (Chapter 14)

(viii) the effects of the federal Anti-
        Inflation program;
        (Not covered)

(ix)   the adequacy of financing for land
        development;
        (Chapter 9)

(x)   the demand for land derived from demand
       for housing units.
       (Chapter 5)

Findings and conclusions will no doubt be more
detailed for some factors and markets than for
others.

Structure A. For the purposes of managing the work of the
               Task Force, the federal and provincial
               Ministers responsible for Housing will consti-
               tute themselves as a steering group with a
               working committee made up of Deputy Ministers.
               The working committee will have the following
               purposes:

               (i)   to approve any changes proposed in the
                      terms of reference as work progresses;

               (ii)   to approve allocations of resources
                      required;

               (iii) to approve the final Report as meeting
                      the terms of reference.

           B. The Task Force shall be independent and shall
               consist of a Chairman and a Vice-Chairman,
               chosen by consensus of all Ministers, together
               with the staff and resources necessary for:

               (i)   preparation of a more specific study
                      design and work plan;

               (ii)   coordination of the Task Force's work;

               (iii) preparation of the Report.

APPENDIX 3. PROPOSED TABLE OF CONTENTS, VOLUME THREE,
RESEARCH STUDIES VOLUME